

THE ILLUSTRATED LONDON NEWS



No. 498.—VOL. XIX.]

SATURDAY, JULY 5, 1851.

TWO NUMBERS, 1s.
WITH HALF-SHEET SUPPLEMENT GRATIS.

WHAT IS TO BECOME OF THE CRYSTAL PALACE?

SUCH is the question which has been asked of the public within the last few days, by no less a person than Mr. Paxton. A similar question has simultaneously been put by a gentleman styling himself "Denarius," who is understood to be an efficient member of the Executive Committee. If any one person more than another has a right to be heard upon this subject with respectful attention, it is certainly the man to whose creative genius we owe that marvellous and beautiful edifice; but, as the two pamphlets which have been sent forth go over the same ground, we shall consider their suggestions together. Between Mr. Paxton and Denarius there is no difference of opinion. Both desire and strenuously advocate the retention of the Crystal Palace in Hyde Park, and suggest novel and admirable uses for that novel and admirable Building—uses utterly unimagined by every one except by Mr. Paxton himself, when he first drew out the scheme, which, happily realised, made the Exhibition popular.

The Commissioners of the Exhibition, as Denarius reminds the public, have not only solemnly pledged themselves that any surplus remaining in their hands after the whole expenses of the Building and the management shall have been liquidated, shall be applied to purposes strictly in connexion with the ends of the Exhibition, or for the establishment of similar Exhibitions in future, but that the Building shall be taken down. But we should remember, that, at the time they entered into this engagement, Mr. Paxton's Crystal Palace had not been imagined; or, if imagined by Mr. Paxton himself, was as yet a secret idea in his own poetical mind. A huge brick building, or a building half brick and half iron, was the only edifice at that time present to the public comprehension; and when the House of Commons affirmed, in July, 1850, by a majority of 166 votes against 47, that the Building, whatever it might be, should be removed at the end of the season of 1851, it was a large brick building which was contemplated. Will the House of Commons, in July, 1851, with Mr. Paxton's beautiful Palace in existence, an object of admiration to all Europe, affirm its decision of 1850, and insist that the fairy structure shall be removed? That is the question which must be decided before the members of the Lower House shall, a month or six weeks hence, betake themselves to the moors. If, not the New Year will see the sword of Hyde-park as bare as it was before the Exhibition was dreamed of, and Mr. Paxton's fair creation will have vanished like a *fata morgana*—as beautiful, but unfortunately as transient. If public opinion express itself in terms sufficiently strong, the Building will be spared; and to show *why* it should be spared, and to prove at the same time the comfort, pleasure, beauty, and improvement that would result, is the object of Mr. Paxton's earnest little pamphlet, and of the equally well-meant pamphlet of Denarius.

Mr. Paxton expressly declares that the removal of his Building never entered his thoughts "When I determined," says he, "on sending in a design, I had in view quite as much the after purpose for which the edifice could be adapted, as the object then more immediately required; and, in my original prospectus, I prominently mentioned the fact as one which had received a large share of my attention. Since that day nothing has happened to alter my views; but, on the contrary, everything has contributed to strengthen and establish them." He proposes, therefore, that the Building should remain standing, to supply a great public want—a winter park and garden under glass—for the use and enjoyment of London and its two-and-a-half millions of inhabitants."

Denarius proposes, in the title of his pamphlet, that the Crystal Palace should be kept for "riding and walking, in all weathers, among flowers

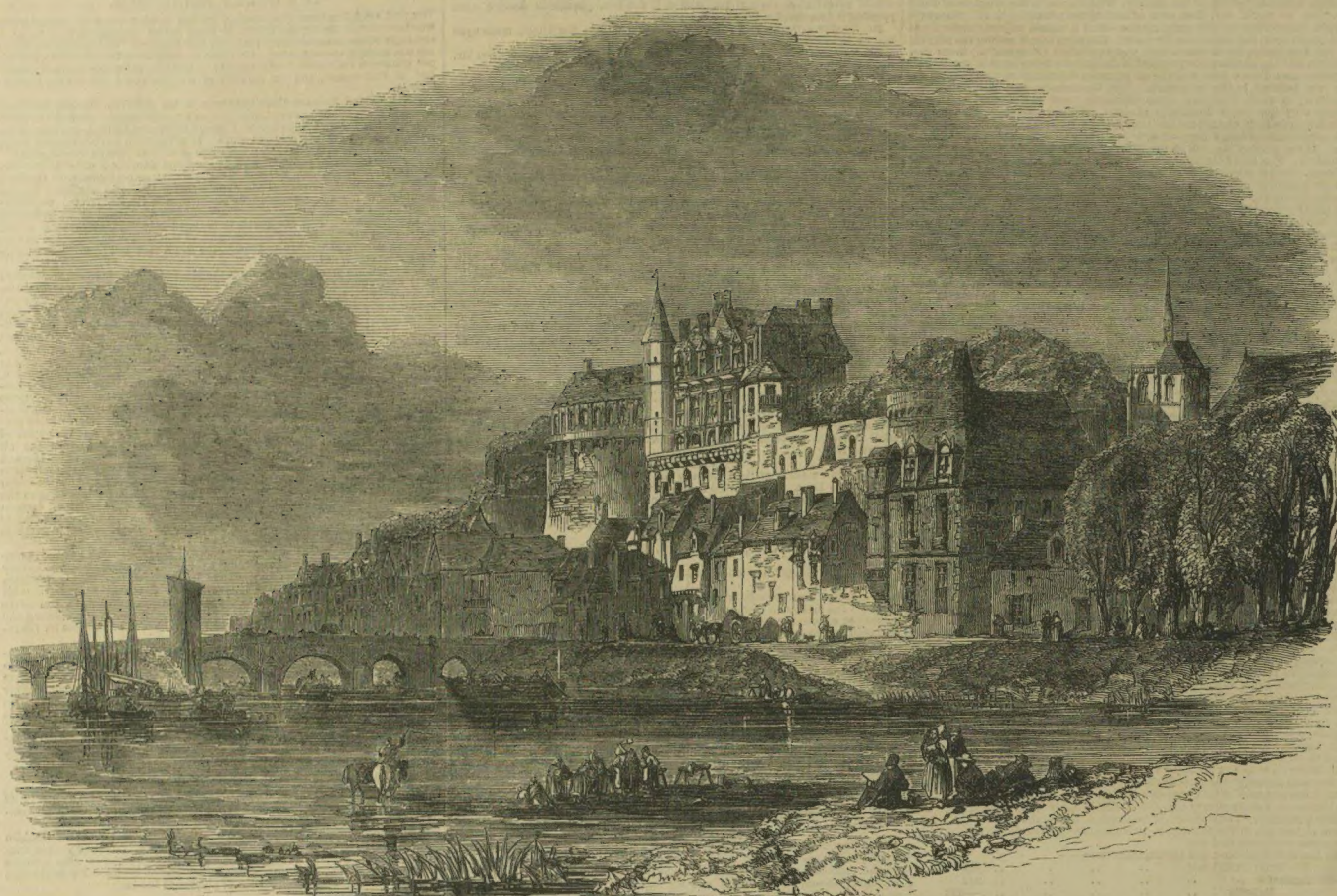
fountains, and sculptures;" a proposition which, with the sole exception of the admission of equestrians, would meet, we believe, with the general and warm support of the community; and which, even as respects the riding, might not turn out to be objectionable. Mr. Paxton's proposal includes the admission into certain spaces of the Building of horses and carriages—and in addition, to the adornment of the whole of the beautiful enclosure, with the trees, fountains, and statues which are indissolubly associated with it in the popular mind—suggests various other uses, which, if carried into effect, would make the Crystal Palace more fairy-like and elegant, more useful and ennobling; after the close of the Great Exhibition than it was before. When we say this, we do not know what higher praise it is possible to bestow, but we must quote Mr. Paxton's proposal in his own words:—

"A building like this, if properly laid out, will open a wide field of intellectual and healthful enjoyment; it will likewise, I hope stimulate the wealthy in large manufacturing towns to a similar adoption of what may now be raised so cheaply; and when judiciously furnished with vegetation, ornamented with sculpture and fountains, and illustrated with the beautiful works of Nature, how pure, elevating, and beneficial would its studies and exercises be! At present England furnishes no such place of public resort; for, although Kew has a splendid palm-house, where daily are congregated a great number of individuals, yet its warm and humid atmosphere is only calculated to admit of visitors taking a hasty view of the wonders of the tropics as they pass in their walks through the gardens. On the contrary, in the Winter Park and Garden I propose, climate would be the principal thing studied



GODIVA PROCESSION AT COVENTRY FAIR.—THE PROCESSION FORMING AT ST. MICHAEL'S CHURCH.—(SEE NEXT PAGE.)

tax would be maintained for a long time; and now that the basis was likely to be



CHATEAU D'AMBOISE, ON THE LOIRE, THE PRISON OF ABD-EL-KADER.

meet with so brave a captive's wishes, still the Government and the Chambers had mainly the power and means to carry out that which he desired. The Emir then said he should like me to accompany him, and to go together to Louis Napoleon. I replied that I should be very glad to do anything I could, but that I believed this would be impossible—adding, however, that I had an innate confidence in Louis Napoleon—that I would lay my life upon his honour, and that, if a boon could be granted, I thought Lady Londonderry and myself would be likely to secure it. The Emir then addressed some flattering remarks to Lady Londonderry; after which a slave entered with a tray of tea-cups and saucers,

each cup holding a few table-spoonfuls, of which we partook. In complaisance, now as the dialogue could not be prolonged, I thought it proper to rise and take our leave. Before doing so, I renewed my assurance to the Emir that I would make known, by letter to the President, his wishes, and also what had passed, and that I would not fail to let him know hereafter the result of my application; but that I had no hopes of success, being bereft of all personal power, holding no office in England to command interest or attention, and the question of his detention being a great national consideration, and an affair of state.

I think this indescribably interesting and noble old chief was much pleased

and greatly affected by our visit. During the whole period of our stay he had my hand grasped between his two large skinny palms, and on my departure he gave me two such affectionate hugs, that my neck and shoulders ached for some time after. Immediately previous to our departure, two pretty children, like Moorish mummies *en habillement*, were ushered in, and we saw some attendants hovering about, but we fell in with no others of the party—of the wives, of the brothers, or of the children—stated to belong to Abd-el-Kader's tribe, and incorporated with him in his captivity, and in the habitation of this dreary, dismal old chateau.



FETE OF THE ANCIENT ORDER OF FORESTERS AT THE SURREY ZOOLOGICAL GARDENS, ON MONDAY.—(SEE PRECEDING PAGE.)

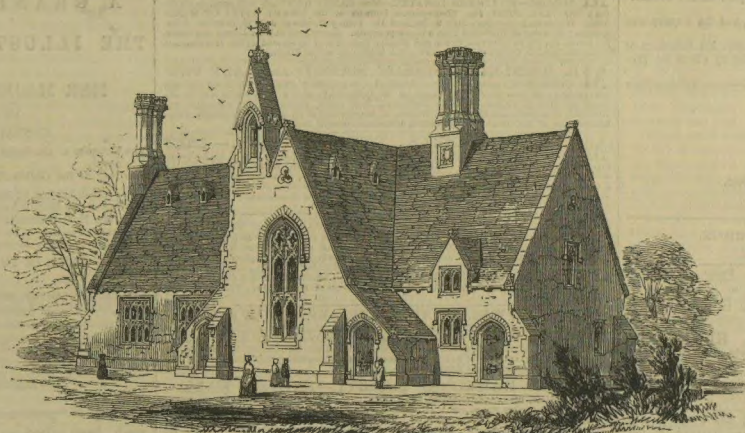


THE RECENT FIRE AT MONTAGUE-CLOSE, LONDON-BRIDGE.—(SEE NEXT PAGE.)

HARROW NATIONAL SCHOOLS AND ASHLEY MEMORIAL.

THE foundation-stone of these Schools was laid on Thursday, the 26th ult. (the Harrow speech day), by the Lord Bishop of London, who was surrounded by the Rev. Dr. Vaughan, the Head Master, and the other masters of the Public Grammar School, the Rev. J. W. Cunningham, the vicar of the parish, a large number of the inhabitants of Harrow, and many visitors.

One portion of the building is a memorial of the late Hon. Anthony Francis Henry Ashley, the second son of the present Earl of Shaftesbury, who died at Harrow School, May 31, 1848, distinguished by the beauty of his youthful piety and eminent blamelessness of character. In testimony of such early worth, his masters and schoolfellows determined to erect some monument in the spot where his example had shown most brightly. It was at first intended to place a tablet in the church; but the contributions having reached £600, it was justly felt that a more suitable testimonial might be



NATIONAL SCHOOLS AND ASHLEY MEMORIAL, HARROW.

unished, by building, with the sum subscribed, a distinct portion of the parochial schools, and connecting it for ever with young Ashley's name.

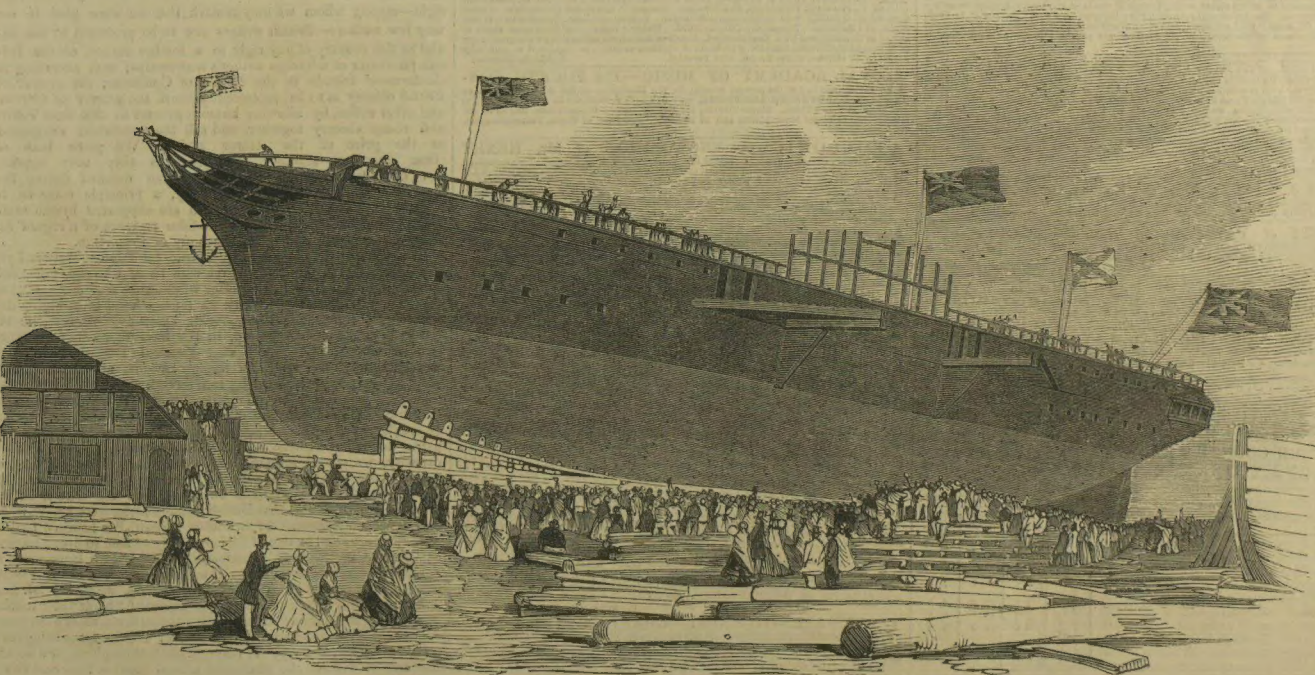
The Schools just commenced consist of school-rooms for boys and girls, each 41 feet in length by 22 in breadth, with a large class-room, and master's residence. The roofs will be open, all the timbers being stained and exposed to view, with plastering between the rafters. Ventilation has been carefully considered, the arrangements for which, together with the internal fittings, will be very complete.

In addition to nearly £700 subscribed by the inhabitants of Harrow, £300 remains to be collected, which the promoters hope to receive from the known liberality of old Harrovians.

The architects are Messrs. W. G. and C. Habershon, of London.

LAUNCH OF THE "AMAZON."

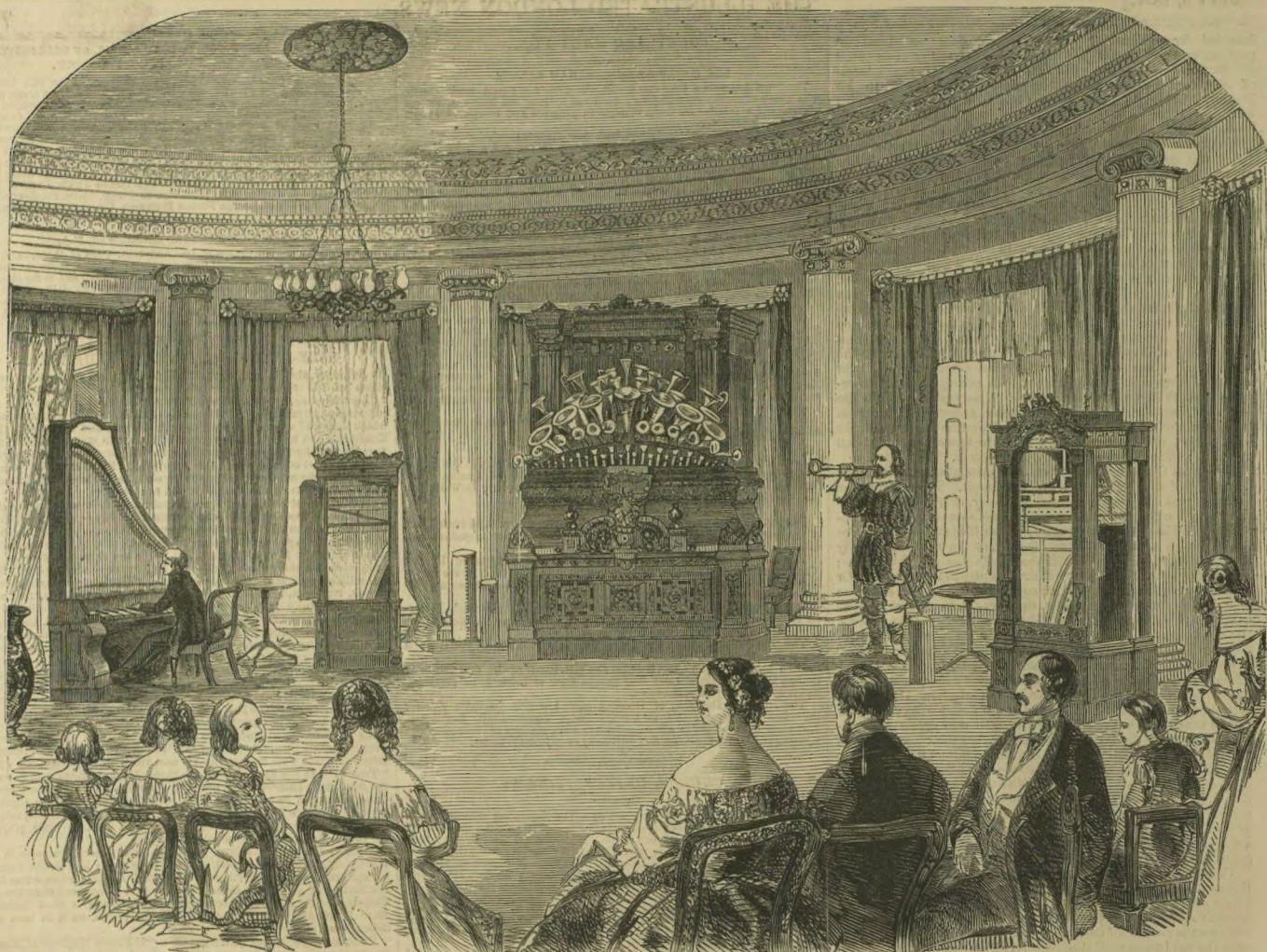
THIS vessel, the largest timber-built steam-ship ever constructed in England, was launched on Saturday from the ship-yard of the Messrs. Green, at Blackwall. The *Amazon* is one of the fleet of new vessel



LAUNCH OF THE WEST INDIAN STEAMER "AMAZON," AT BLACKWALL, ON SATURDAY

foreigner happen to be a manuscript of a book, or a piece of music

In connexion with the subject of our Illustration, a few words on the "American Plants" exhibited at the Botanic Society's Gardens here may not be out of place. Many persons are under the erroneous impression, that these plants, instead of having been raised and grown in the county of Surrey, are a mere contribution from our Transatlantic friends. It is true that in some instances the seeds of the plants themselves having been taken for genuine specimens of the great Western Republic. It may, therefore, be desirable to state, for the information of the general reader, that many of the plants of which this exhibition is composed were originally obtained from North America. The greater number were first introduced into England by the Rhododendron Society, and were brought through the process of hybridizing, from those species which were first introduced into England from the same quarter. But various countries of Europe have also had a share in enriching our lawns and shrubberies with these showy plants; and many very choice sorts have been raised in this country. Besides the Rhododendrons, are the *Kalmia*, and *Asarula*, both for the



HERR KAUFMANN AND SON'S GRAND MUSICAL PERFORMANCE AT BUCKINGHAM PALACE.—(SEE PRECEDING PAGE.)

most part indigenous to different places on the American continent. The *Kalmia* is a plant of rare beauty; the flowers are much smaller than those of the other two genera named, and also later in opening; though less gorgeous, they are, perhaps, more admired, for their delicate tints and singular form. The hardy *Asarum* are distinguished from those of Indian origin by the term *sentica* or *Ghent*. Their more common colours are orange, scarlet, and

white; and nothing can be more effective for a rich and varied display. Some of the white sorts are also deliciously fragrant—a property which the others, with one or two exceptions, do not possess.

Several other genera belonging to the same natural order are also represented in the different collections here; but the grand display is essentially formed by the *Rhododendrons*.

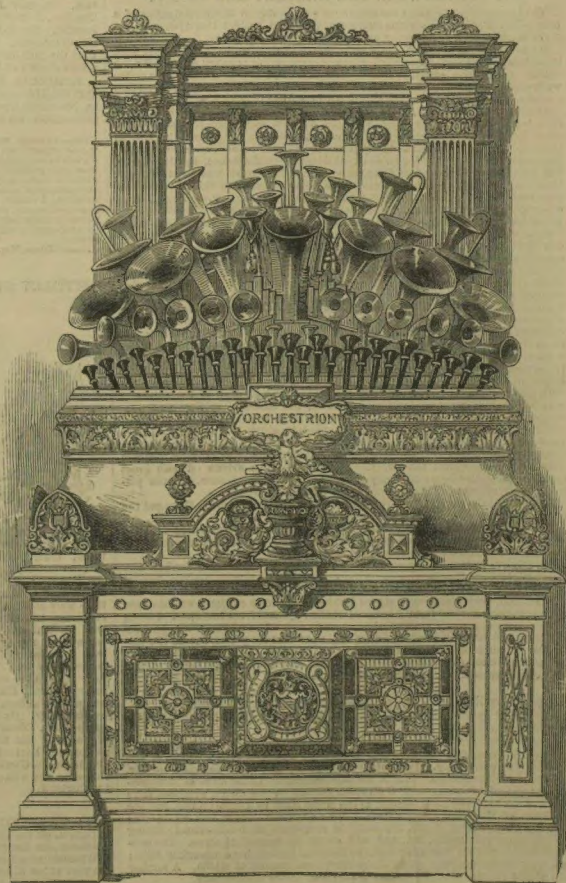
The whole exhibition is under canvas, and occupies about three-

quarters or an acre; and the plants, which are arranged in an easy and natural manner, are supplied fresh from the nurseries at Bagshot on every occasion. The exhibitors are Mr. Waterer, Mr. Baker, and Messrs Standish and Noble, whose united collections, about the middle of June form a display of the most magnificent character.

This exhibition has been visited by her Majesty, Prince Albert, and the King of the Belgians.



MONSTERA RHODODENDRON, GROWN AT THE AMERICAN NURSERY, BAGSHOT.—(SEE PRECEDING PAGE.)



THE ORCHESTRATION.



GRAND NATIONAL ARCHERY MEETING AT LEAMINGTON.—SHOOTING FOR THE LADIES' PRIZE.

GRAND NATIONAL ARCHERY MEETING AT LEAMINGTON.

WITHIN the last seven years the attempts to revive the public taste for archery have been very successful. In 1844, 1845, and 1846, assemblages of archers from various counties took place at York; in 1847, 1848, and 1849, the scene was changed to Derby; and in 1850 to Edinburgh, where it was determined that the next great gathering should take place at Leamington, in compliance with a requisition presented from the county of Warwick to the committee of the National Society.

During the two years since which steps were first taken to secure to Leamington this distinction, the local committee have displayed great energy in the prosecution of their object, as is strikingly shown by their having obtained a list of patrons, containing the names of upwards of one hundred of the nobility and gentry of the county; amongst the most distinguished of whom we find those of his Excellency the Lord Lieutenant of Ireland, the Earl of Aylesford, the Earl and Countess of Bradford, the Earl of Denbigh, the Earl of Buchan, Earl Somers, Countess of Farnham, Lord and Lady Leigh, Viscount and Viscountess Lifford, Viscount Newport, Lord and Lady Somerville, Lord and Lady Guernsey, Lady Emily Harding, Lady Charlotte Palmer, Lady Elizabeth Bouverie, the Hon. Charles and Mrs. Bartie Percy, the Hon. Charles Lennox Butler, Sir William and Lady Harcourt, Lady Mordaunt, Lady Cave Brown Cave, Lady Duberly, Sir Gray Skilpith, Bart., Sir Robert Peel, Bart., M.P., and Sir Charles Douglas, M.P.

Few places offer so many objects of attraction as Leamington; the facilities by railway from every part of the kingdom—the numerous and various conveniences in hotels, boarding-houses, and private apartments—the beauty of its scenery, with its delightful walks—the interest of its neighbourhood, and easy access to Warwick Castle, Kenilworth Castle, Guy's Cliff, Stratford-on-Avon, Coombe Abbey, Stoneleigh Abbey, Charleotte, Hampton Lucy, and a host of other places of like interest, all contributing to the amusement of its visitors. To archers there was the additional recommendation that the local committee had succeeded in obtaining a county subscription of nearly £400—being at least three-fourths more than was ever contributed in any previous year from such a source—and thus enabled the committee to announce a list of prizes of about £500 in value, to be distributed in plate or jewellery, and to be selected by the winners. There was also the champion's gold medal, as heretofore; besides four local prizes offered exclusively for residents in the county of Warwick.

The meeting was fixed for Wednesday and Thursday week; and, after a meeting held at the Regent Hotel, on Tuesday evening, where the lots for the target tickets were drawn, it became known that eighteen targets would be pitched for 93 gentlemen, and six for 33 ladies, making in the whole 126 competitors—a number greater than any preceding year had witnessed, except 1846, when the principal prize at York was valued at 100 guineas. There was this year also a considerable increase in the amount of the rewards of honour, compared with those given at Edinburgh, where the total value of the prizes was £341; and a larger number of ladies were to contest for the honour of the field than had ever before been witnessed at such a festival.

The prize jewellery and plate, exhibited at Messrs. Bright's establishment, in the Lower Parade, consisted of solid silver corner dishes, in sets of four; silver tea-kettles, with lamps and stands, and silver tea and coffee services. There were also silver vases of every pattern, from eight to twenty-four inches in diameter; claret jugs, some entirely silver, and others of Bohemian glass and crystal. To these may be added, tankards and cups, chased and engraved with rural, agricultural, and topographical subjects; copies of Benvenuto Cellini's, &c., silver casket frames, inkstands, cake-baskets and fruit-dishes, cream-servers, toast-racks, egg-frames; clocks and candelabra, in or moulu and bronze, &c.

For the Ladies' Prize were tastefully arranged a rich selection of gold bracelets, set with diamonds, pearls, carbuncles, and ruby garnets; gold and enamel watches; jewel-caskets in burl, nacre, and oxidised silver work; tables and jardiniere in burl, together with an endless variety of brooches.

The Ornamental Wooden Spoon was also shown at this establishment. The stem of the spoon is a clown's figure, with fool's cap and bells, terminating at the bowl, which is formed of the body of a goose; the head of the goose is pierced down by an arrow, and forms the centre of the stem. The clown is decorated with a medal engraved "Grand National Archery Meeting, 1851."

The arrival of visitors commenced on Tuesday evening, when the principal hotels received archers and other visitors from Edinburgh, Glasgow, and many parts of Scotland; from Ireland and Wales; from London, Yorkshire, Durham, Lancashire, Kent, Devon, Norfolk, Berkshire, Sussex, Derbyshire, Nottinghamshire, Oxfordshire, Staffordshire, Bucks, Northamptonshire, and other provinces, whose names included some of the most expert and influential bowmen of the day. Their numbers were still further augmented throughout the following day, when the special trains from different parts brought into Leamington several thousand persons.

FIRST DAY'S SHOOTING.

The spot selected for the long-expected fête was Messrs. Parr and Widen's cricket-ground, comprising an area of eight acres. Around a spacious inner inclosure for the archers were ranged, north and south, eighteen targets for gentlemen and six for ladies; and to this inclosed space the subscribers to the meeting were admitted by ticket. The remainder of the ground was so arranged that the spectators obtained a very excellent view of the whole of the shooting. On the east side, to which admission was obtained at a very moderate price, were erected three tents, in front of which were hoisted the Royal standard and union-jack. There were, also, various other tents; and the German band enlivened the scene by their performance.

About twelve o'clock the bugle signalled the gentlemen to their targets, and the shooting of six dozen arrows at 100 yards commenced; one of the Honorary Secretaries occupying a place at each of the extreme targets, as leader. Henry Peckitt, Esq., of the Thirsk Bowmen, officiated as judge.

The weather was most propitious. At first, the wind was considered unfavourable to the well-directed arrow; but, as the day progressed, some close shooting ensued, and many feats of skill and dexterity were performed, especially at target 16, between the champion, Mr. Ford, with Mr. W. Peters, and Sir C. Garrett (Royal Topophilites), Mr. Muir (Salisbury Archers), and Mr. A. P. Moore (West Norfolk Bowmen), all distinguished archers.

About two o'clock the shooting of the first six dozen arrows at one hundred yards having been completed, luncheon was served. At the conclusion of the collation, the archers re-assembled to the targets, the ladies commencing at sixty and the gentlemen at eighty yards.

The shooting by the ladies, of four dozen arrows at 60 yards, was succeeded by two dozen at 80 yards, and each was pronounced by the best judges to be of a superior description.

The sport terminated shortly before six o'clock. The shooting of the gentlemen, taken as a whole, was of a very excellent character. Several very central hits were made at 100, 80, and 60 yards.

In the evening there was a grand display of fireworks by Darby, in the Jephson Gardens.

SECOND DAY.

The weather on Monday was again favourable. As soon as the gentlemen had concluded the discharge of their six dozen arrows at 100 yards, and luncheon had been served, the usual meeting of Archers was held in the Visitors' Tent, to make arrangements for the ensuing year; and the motion, "That their meeting be held in Leamington next year," was carried by acclamation.

After some resolutions had been passed complimentary to the gentlemen who had conducted the business of the meeting, the shooting was resumed by the gentlemen at eighty and sixty yards, and by the ladies at fifty and sixty yards. The graceful style in which the ladies discharged their arrows, and the excellent manner in which they made their "hits," rendered their shooting throughout the day much superior to that of the gentlemen.

In the afternoon, the band of the 4th, King's Own Regiment, played several pieces. The shooting did not terminate till near six o'clock.

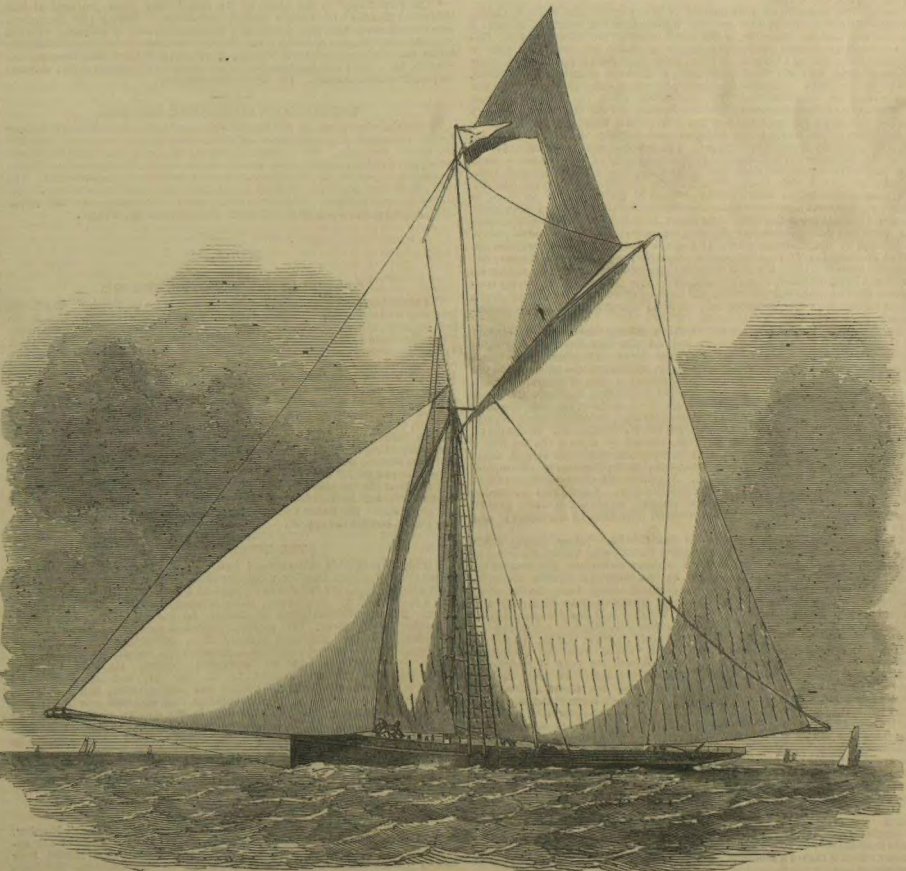
In the evening there was a Grand Dress Ball at the Royal Assembly-Rooms, which was attended by about 300 persons, among whom were many of the most distinguished county families, and some of the leading competitors in the archery amusements of the National meeting.

The prizes were declared in the ball-room, about two o'clock, by Mr. Luard, hon. secretary.

The principal prizes for ladies were gained as follows:—251, Miss Villiers, Worcestershire Archers; 201, Miss Thurlfield, Roor Vale Archers; 151, Miss Harding, Warwickshire; 101, Miss Peel, Worcestershire Archers; 61, Mrs. W. Miller, Oxfordshire; 81, Miss P. Palmer, Warwickshire. Gentlemen's Prizes:—41, Mr. H. A. Ford, Royal Topophilites Society; 401, Mr. Bramhall, West Norfolk Bowmen; 311, 101, Mr. Heath, Fraternity of St. George; 301, Mr. P. Muir, Salisbury (Edinburgh) Archers; 211, Mr. Henry Garrett, Lichfield Archers; 201, Mr. W. Peters, Royal Topophilites Society; 171, 71, Mr. H. Stewart, York Archers; 171, Mr. Holman, Pilkington Archers; 161, 101, Mr. Heath, jun.; 161, Mr. Hiltow, Chesham Hill Archers; 151, 151, Mr. Hushorn, Camden Archers; 141, Mr. Willis, Queen's Park (Brighton) Archers; 141, Major Nixon; 141, Major Clowes, Worcestershire Archers; 101, Mr. A. P. Moore, West Norfolk Bowmen; 101, Mr. Bedford, Woodmen of Arden; 101, Mr. Davison, Worcestershire Archers; 101, Mr. B. Clark, Salisbury Archers; 101, Mr. W. W. Hargrove, York Archers; 101, Mr. Graham Moore, Salisbury Archers. An ornamental wooden spoon for the greatest number of whites, to Mr. G. Oller, Chesham Hill Archers. Local Prizes:—121, Mr. Garrett, Woodmen of Arden; 81, Mr. G. Wilkinson, Neville's Cross Archers. The Champion's Gold Medal is still retained by Mr. H. A. Ford.

ROYAL THAMES YACHT CLUB.

The race for the Grand Challenge Cup on Wednesday (last week) created, as usual, considerable interest among yachtsmen, and the extreme fineness of the weather rendered the day's trip most pleasurable to visitors, a vast number of whom were present. The *Ruby*, chartered by the club for the occasion, was thronged with a fashionable assemblage; besides which, the Marquis of Anglesey's *Pearl*, with her noble owner on board, to whom the customary honour



[THE "VOYAGE," WINNER OF THE ROYAL THAMES YACHT CLUB GRAND CHALLENGE CUP.

The *Madras Athenæum* states, upon the authority of private letters received from Moulmein, that the ship-building business is at present very brisk, and that Moulmein is becoming an extensive building port.



SANITARIUM, DESIGNED BY JOSEPH PAXTON, F.R.S., FOR THE CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, VICTORIA-PARK.—(SEE PRECEDING PAGE.)

THE EXETER DIOCESAN SYNOD.

In the Postscript to our Journal of last week, we reported the proceedings of the Synod to Thursday evening. We now engrave the Bishop's Throne; and the Chapter House, in which the Synod was held.

The Bishop's throne is of dark oak, about 52 feet in height. The canopy is composed of pointed arches, columns, niches, pinnacles, and foliated ornaments, tastefully and delicately carved, rising in a pyramidal form, and finishing in a series of ascending spires. It was erected by Bishop Bathe, in the year 1470. During the Commonwealth it was taken down and concealed, but replaced at the Restoration, and now remains almost as perfect as when first erected. It stands on the south side of the choir, and immediately opposite the pulpit. The illustration shews the lower portion of this beautiful work.



THE BISHOP'S THRONE, EXETER CATHEDRAL.

The Chapter-House stands in the cloisters, adjacent to the south tower of the Cathedral, and is said to have been built by Bishop Lay (consecrated 6th April, 1420); but the lower part being different in style from that of the superstructure, and so much resembling the church, it is probable this portion was the work of Bishop Quivil. It consists of a splendid room, measuring, with its vestibule, 75 feet by 30 feet. Its richly ornamented roof and general design will be found exceedingly interesting. The library, which used to be kept in the Lady Chapel, has been removed here. It contains about 8000 volumes, among which are many valuable and scarce books. The oldest printed book in the collection is a folio edition of "Cæsar," printed in 1471, in a very good state of preservation. Among the Cathedral MSS. (not shown without express permission) are some of genuine Saxon origin; a perfect series of accounts of the building of the Cathedral; the episcopal registers from the time of Edward I.; and a volume of the "Domesday Survey" of William the Conqueror, relating to the counties of Devon and Cornwall, of the size and style of the small Exchequer volume. A curious circumstance occurs relative to the Exeter "Domesday;" a leaf was missing, and a few years ago it was discovered by a gentleman in the country and restored to its place.

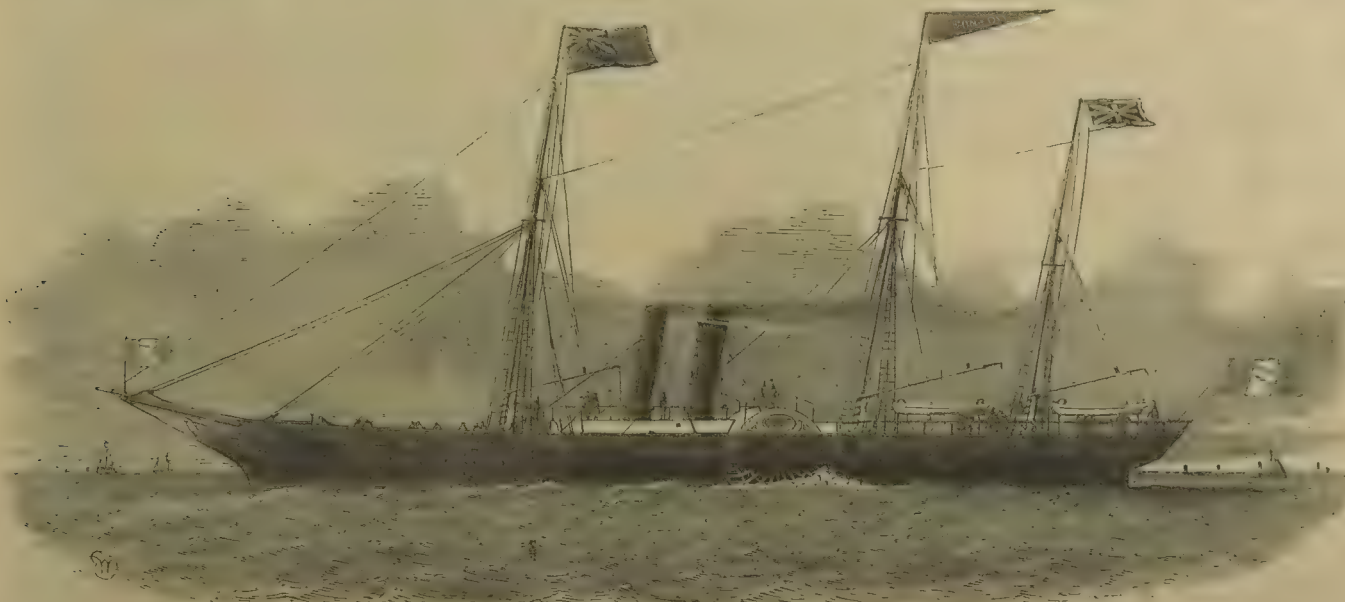
Our illustration shows the interior of the Chapter-House: it is of the Perpendicular period of Gothic architecture. The books are ranged round the room under the arcades beneath the windows. On the occasion of large meetings like the present, the shelves are protected by canvas.

On Thursday morning the Bishops and clergy attended divine service at the Cathedral, and afterwards proceeded to the Chapter-house, where the discussion on the declaration touching the Sacrament of Baptism was resumed; and, after the delivery of several addresses to the Synod, the declaration was unanimously adopted.

The Synod then proceeded to the consideration of the subject of Education according to the principles of the Church of England, and passed, again unanimously, a series of resolutions in support of the Diocesan Training College, the enlargement of which is contemplated, and of an efficient system of diocesan inspection. An adjournment then took place for the purpose of attendance on the afternoon service at the Cathedral; and, on the Synod re-assembling, the subject of public catechising on Sundays and holydays, after the second lesson at evening



SITTING OF THE SYNOD, IN THE CHAPTER-HOUSE.



TRIAL TRIP OF THE "BARON OYST," IRON STEAM-SHIP.—(SEE NEXT PAGE.)



burial.—On the 10th inst. the very Rev John Jones, late of St. Mary's, Newport.—On the 21st of April, Alexander Murray (Coventry), of M N B. Haverhill, great grandson of the sixth Earl of Coventry.—On Thursday, June 23, Maria Louisa Cunningham, wife of M

EXHIBITION SUPPLEMENT TO THE ILLUSTRATED LONDON NEWS

No. 499.—Vol. XIX.]

SATURDAY, JULY 5, 1851.

{ TWO NUMBERS, 1s.
WITH HALF-SHEET SUPPLEMENT GRATIS.

THE GREAT EXHIBITION.

GENERAL AND MISCELLANEOUS MODELS.

THE art of modelling, as applied to landscape, is one which we believe to be susceptible of more improvement and more advancement than is generally considered possible. It has never yet been treated as an art, and it has been in general only pursued as a matter of individual whim by scattered members of that ingenious body of amateur wielders of their fingers who are continually producing specimens of that class of nondescript articles which we admire for their ingenuity, and very often not the less for that ingenuity having been singularly misplaced. The tribe of industrialists to whom we refer are the cunning workmen who love to astound the world by constructing either anomalous objects, or commonplace objects made of anomalous materials. One genius will arrange

shells into the shape of fruit or flowers. Another—and he has sent his work to the Exhibition—will construct such a monstrosity as a ship fully rigged—her ropes, sails, and spars all cut out of cork. Again, we shall have a cunning workman carving wonderful things out of pith, or shaping a lamp, which is the rapturous admiration of the neighbouring provincial journal, out of a turnip. Anon, we find a man devoting his life to writing the Lord's Prayer and the Ten Commandments within the compass of a fourpenny bit; while his neighbour in these unappreciated arts sends up to the Queen, as an appropriate present, a walking-stick, carved all over with the figures of the Zodiac, or a scene from "Paradise Lost;" or, perhaps, a wonderful watch, containing a snuff-box; an almanack; a set of toothpicks; directions for the preservation of health; and a steam for bleeding horses. Any attentive reader of the newspapers—and who is there who is not?—will recognise in a moment the class of nondescript ingenuity to which we refer. The neat-

handed monstrosities thus produced generally attain an immortality of a fortnight or so, while the laudatory paragraph goes the rounds, until they are supplanted by some more recent and even still more wonderful intelligence touching an enormous gooseberry, or a shower of frogs, in a remote district of England. Now, what we want to enforce is, that modelling as applied to landscape, or to those degrees of the art which lie between raised map making on the one hand, and the representation of rocks and ruins and trees upon the other, has been in general only pursued by the class of nondescript industrialists whose master-pieces we have characterised; and the natural consequence is, that the art, in its ordinary manifestations, is in a state of utter debasement and tasteless rudeness. Of this the Exhibition affords several curious proofs; amongst which we may mention at once a model of Tyne-month Priory and rock, which would have disgraced a sugar baker, and a model of a grand allegorical procession of the Shaksperian characters



WAITING HER MAJESTY'S ARRIVAL.

The above Engraving represents the waiting-room erected for the reception of her Majesty near the North entrance of the Building, having particular reference to the surrounding group of anxious spectators, on the occasion of the inauguration of the Crystal Palace, on the 1st of May. This elegant little apartment is chiefly composed of rich

tapestry, the interior being lined with pale light blue and white silk, fluted. The furniture is of a very costly character, combining lightness of appearance with splendour of effect. The sofa and chairs are carved and gilt, and covered with light blue silk damask. The carpet of rich Brussels, is a flowered pattern. Flowers, tastefully disposed, add a pleasing and lively

effect to the picture. In the rear of the principal room is a smaller apartment, separated from it merely by a draped partition, in which is a handsome oval glass, in a gilt frame and stand. Crowds of persons daily throng to view this little boudoir of a boudoir, at a respectful distance however—a sardon being drawn around it, guarded by a policeman.

[illegible]

The same principle has evidently been acted on—the walls running as to flanks, command, and mutually fortify each other—and falling into the shapes to which we give the names of ravelines, bastions, flanking walls, and so forth. The adoption of a similar principle of defence by civilised and savage people, shews at once the common sense and common reason which prevails over the principles of fortification as we now teach them.

India is rich in models. We have many very interesting ones of Eastern ships, particularly the finely-shaped and moulded piratical craft which haunt the great Archipelago. Then there is a number of models of temples and shrines, some neatly manufactured, others rudely carved, but probably representing the originals with sufficient accuracy. To this interesting collection of model figures, we directed attention in a recent article on costumed models. The change brings the actual condition of the natives before our eyes much more vividly than any pictures could do. Then there are interesting models, rudely made, but probably quite correct, of the processes of different trades. At the saw-pit there is, as with us, a top-sawyer and a subordinator. The waver plies his rude-looking, but often skilfully-managed loom; the ag culticater, with a yoke of bullocks, stands on his plough to force it down the furrow into the earth; while, as in the tale of the prophetic, the hand-mill is still wrought by two women—a tolling-mill and a subordinator. On the other side, the great tent is arrayed under a new set of mode, representing what we may call high life in Asia. Here we are altogether among rajahs and nabobs; and we have miniature palanquins and howdahs, and thrones, miniature nautch dances, and miniature camel and elephant processions; not forgetting one specially interesting specimen of imitative art, proudly labelled "English officer drinking port." Tearing ourselves away from this deliciously national entertainment, we next turn to the most interesting and characteristic models in the Exhibition. Two of these are of courts of justice—the one presided over by a European in "muff," the other by a native Judge, gorgeous in gold and silk. The courts appear to be roofless; they are probably placed in the shade, and are more platforms or hearings. The Judge sits at the back a couple of chairs, and a couple of advocates sit on either side. On the right, two persons, acting, we presume, as ushers or officers of the court, and distinguished by yellow scarves, are in attendance outside the platform, which may be elevated some three feet from the ground, while the culprit is in both instances represented as begging with clasped hands in an attitude of misery. Another interesting model is that representing Hindoo religious penances; half a dozen enthusiasts being suspended by hooks fixed in the ceiling, and the whole of revolving pieces of machinery, which is turned by their friends below, and the wretched swing in circular fashion, somewhat in the style of the revolving machine one sees at the fairs, although, in the present case, the poor fanatic victim is as hardly to be said to be in the enjoyment of a decided "merry-go-round." Among the miscellaneous Indian models is one of an Indigo factory, with a curious sort of treadmill for getting up water; no end of puppets and temples, with miserable hangings of graven images, showing a descent in art almost to Chinese levels; a slum, but elaborate representation of a fortified citadel, the men out of all proportion to the building; and perhaps the most curious of them all, the model of "The Encampment of a Collector of Revenue settling with the Cultivators." The space shown is a square piece of ground, intended probably to represent two or three acres. Here numerous tents are pitched; and peeping into them, you see the collector and his subordinates, receiving and giving receipts for the cash. The tax-payers, who have paid up or are waiting their turns outside, are squatted in great numbers upon the grass—each man with his schedule in his hand, and no doubt, grumbling lustily. The encampment is studded with trees, not much better than those arborious attempts we sometimes see made with shavings; but they bear vast crops of yellow and red tulips, and add to the display in the shape of big, and big, and big, or, as we call it, "swains at least. Behind the main encampment are piles of baggage. Camels lie in a line beneath the trees; bullocks and elephants fraternise amicably; and scores of servants fly from place to place. At a break which mingles through the encampment, washing operations are being prosecuted with great vigour. Cavalry horses are picketed about, and a company of English infantry are lounging round their piled arms. Altogether, the scene is rich, showing no pretensions as a work of art, is very curious, very characteristic, and very instructive.

A LADY'S GLANCE AT THE GREAT EXHIBITION.

There is nothing more remarkable among the wonders of the great metropolis, than the ample manner in which the peculiar habits and bent of mind of every class of society is catered for in the way of public amusements. It has, however, been reserved for the Great Exhibition to comprise under its one crystal roof objects of interest to every one, and to solve the apparently impossible problem of satisfying every taste, and fulfilling expectations of the most opposite and contradictory character. The Londoner, wedded to the comforts and elegances of the metropolis; the country gentleman, profound in crops and agricultural implements; the mechanic and the labourer, intelligent on looms and on looms; the amateur in art, in search of a *chef d'œuvre*; the manufacturer on the *quid vive* for an idea; may each find their representatives of his own peculiar tastes, interests, and feelings, and to each will the whole, beheld from his own peculiar point of view, present itself in a different aspect.

Although by no means disposed to undervalue the interest which attaches to patent ploughs and improved steam-engines, or to depreciate for a moment the beauties of the Davarian Lion, or the utility of Messrs. Taylor's Jacquard loom, still, as I am "only a woman," and cannot be expected to appreciate their details, I am content to leave their description to those whose experience renders them more competent to grapple with such mysteries; and, seeking in the retired byways of this Temple of Industry objects of a more congenial, if less important character, to view the Exhibition with a woman's eyes alone. I have the less hesitation in claiming a brief space for the examination of objects more peculiarly attractive to ladies, when I remember that there was perhaps scarcely ever a great work commenced in this country in which they have so fully participated. They began at the commencement by the Subscription Committee at Stafford House, as well as with the aristocratic, but even more productive, meeting of ladies at the Manoir House; and at the final completion of the great work, their contributions to the adornment of the Building were found to have been neither few in number nor uninteresting in character. The objects in the Crystal Palace which address themselves especially to the predilections of ladies, are so numerous and so varied, that I am almost overwhelmed with the *embarras des richesses*; and not being of a mathematical turn of mind, I scarcely know where to begin; but the following may be instanced as among the most prominent:—

Toil-like, as occupying an important position in our own toilet, I must certainly give the precedence. They are offered for our inspection in every variety—damask, brocade, tulle, glacé, striped, checked, wadded, merited, and clouded; some valuable from their brightness; some, the merit of which consists in their dulness alone. Many specimens are interesting, not only from beauty of design and delicacy of manufacture, but from the fastness which attach to them of the wearers. The ladies of Labour and Industry employed in their manufacture, and of the mechanists. As, however, I propose, on some future occasion, enlarging on these fabrics, I will proceed to what may be regarded as a humbler feature of the same department, and glance at the different specimens of ribbons. There are gauze, satin, sarsnet, velvet, and lute-string—plain, figured, flowered, stamped, and open in pattern as well as in texture; with edges plain, scalloped, beaded, and vandyked. There are present in every variety of width, quality, and colour. There is also a description peculiarly adapted for trimming; it is gossamer and quilted in the process of manufacture, and with a regularity that the most skilful hand could never emulate. It is easy to prophesy for this invention a welcome from dressmakers as well as from their em-

ployers. To the former it will save many hours of ill-requited labour, whilst to the latter class its novelty will be a sure passport.

In alluding to the subject of Furs, I find myself bewildered by the number of animals which have contributed their skins to enrich the various collections, among which the beautiful trophies of Mr. Nicholay, of Oxford-street, rank deservedly high. The aristocratic ermine, with many others of the weasel tribe, are to be found in perfection. The delicate chinchilla; the Siberian or Russian sable, the most valuable of its species; that from Hudson's Bay, only second to it in repute, are worthily represented. The wood-marten, a native of the German forests; the stone-marten, an inhabitant of rocks and ruined castles; and our own English marten, all add to the assemblage of materials for muffs, bonnets, trimmings, &c. In some instances, as in that of Mr. Nicholay, the skins are exhibited in a manufactured state, but this is by no means universally the case.

We shall find ourselves amply rewarded for a minute investigation of the different varieties and individual specimens of Lace exhibited, that, not having adequate space at my disposal at the present time, I must content myself with observing, that our admiration is claimed by every description of Point, Honiton, Mechlin, Brussels, Valenciennes, &c. in the forms of dresses, veils, berthes, shawls, scarfs, cassavaks, &c., of a beauty and elegance hitherto never equalled.

Among other articles of luxury in the Crystal Palace, to which, as exclusively interesting to ladies, I must not omit to advert, are the fans of M. Duvellier, who employs, I am told, in his manufactory for their construction, no fewer than two thousand hands. Among the fans selected by him for exhibition, are a set intended for the ladies of the Sultan's Harem, decorated with designs from the "Arabian Nights;" there are also the fans which were used at the marriage of the Duchess of Orleans, painted by distinguished artists of the day; there too, precious relic of a most unfortunate woman, is the fan of Marie Antoinette, which has been recently repaired, and restored, I should imagine, to something like its former beauty; nothing had remained of the original except the panaches and pieces of the handle, which is of mother-of-pearl adorned with medallions and ornaments of carved gold. In the space formerly occupied by the Royal arms (erased during the Revolution) is now to be seen a picture from the pen of Boucher. Some of these toys, enriched with jewels and works of art, have been sold at a sum approaching a thousand pounds each. Interesting and valuable, however, as such specimens may be from their adornment, they are in some respects inferior to the elegant feather-fans now in vogue, the lightness and airiness of which render them peculiarly applicable to the purpose for which they are designed.

Of feathers, the courtly decoration of ladies of all nations, and favourites alike with the most savage tribes and the most civilised orders, every variety seems collected here from the four quarters of the globe. The white plumage of the ostrich, the delicate feathers of the osprey, the egret, and the marabout, are rivals in beauty; some there are which, though little valued by us, are interesting as being employed by the chiefs of the wilderness as emblems of supremacy over their own wild brethren. Some, the tribute of birds long held sacred, as, for instance, the ibis, whose form was so favourite a subject with the artists of antiquity, and whose scarlet plumage in its natural condition forms so brilliant a wreath for the hair, also contribute their attractions. It is not, however, to ornamental purposes alone, that feathers are appropriated in the Exhibition. Bonnets composed of them have there made their appearance, and may be included amongst its decided novelties. The feathers selected for the purpose are those of the pheasant of many kinds, the goose, the swan, and especially the guinea-fowl; they are arranged on a shape in rows of diversified colours, and in many variations of pattern. The bonnets are light, soft, and warm; but, with regard to their beauty, there will be much difference of opinion, varying with the taste of different individuals.

Turn we now to the specimens of imitative art, which present themselves in the shape of Artificial Flowers. In the different forms and materials, which claim our wonder and admiration. It would, indeed, form a distinct Exhibition, of no little interest in itself, could the different specimens of imitative flowers, which are scattered through the Building, be collected in one spot, free from the admixture of any attractions foreign to themselves. Let us observe, first, the strange variety of substances, some of the most stubborn, and, apparently, unavailable character, which contribute material for the imitation of the lightest and most delicate of the creations of the Almighty, and unite as it were in doing homage to the world of flowers. Stone in endless variety, from granite to marble; wood of every hue and grain—the ebony, dyed black by nature; the delicate maple, box, and satin-wood, fairest of their order—and even spices, the clove, nutmeg, and pimento, seem to blossom again in a new phase of existence. Precious stones, valuable for their rarity, and their costly contributions, and seem to gain new beauty in the guise of the rose, fuchsia, and forget-me-not. Even coal, the least valuable though not least beautiful specimen of the mineral kingdom, polished and fashioned into buds and blossoms, shows its dusky face among its betters, and has its claims to admiration most ungrudgingly allowed. The pure ivory tusks of the elephant, and the flexible bones of the whale, are alike made tributary to the genius of the garden; whilst the broad ocean sends her contributions of seaweed, coral, shells, and, lastly, pearls. Birds, too, resign their plumage—the peacock and the flamingo, the bird of paradise and the turtle dove, which gives its own name to the most beautiful of quiet colours. The insect tribe (the bitter enemies of the flower race) have their representatives here to do them honour. The beetle of Brazil and the firefly contribute their wings, and the honey bee its wax; whilst man himself gives not only his labour and his ingenuity, but adds one of the most singular materials of all, his hair!

Amid so great a variety of specimens, each possessing some distinct claim to notice, either from beauty of design, elegance of arrangement, or the ingenuity which has produced excellence from apparently the most unpromising materials, it is somewhat difficult to determine where to award the palm of merit; and here my own personal tastes will of course have their preponderating influence. In the many visits I have myself paid to those portions of the walks and galleries of the Crystal Palace which are devoted to the exhibition of artificial flowers, the following struck me as peculiarly remarkable for artistic skill, beauty, and novelty.

In the ILLUSTRATED LONDON NEWS of the 7th of June, an Engraving was given of the *Mayazin* of M. Constantin, situated in the Nave of the Building, conspicuous alike for its architectural attractions, its tasteful adornment, and the admiring crowd by which it is generally surrounded. It has been found necessary to guard it from too eager an approach by a railing, which, however, the proprietor has rendered as little conspicuous as possible by a covering of velvet, in deference to the admiration which causes the danger. Amongst the most beautiful, and certainly most original of the exquisite imitations in this collection, I must especially notice—for elsewhere I have seen none of their particular class to equal them—a variety of exotic plants as they appear in their various gradations of bud, blossom, full maturity, and, lastly, drooping or dropped from their stems in decay. The latter specimens are peculiarly effective; and the more so because the artist, with a taste commensurate with his skill, has represented them, in a withered state,

Before decay's effacing fingers
Have swept the lines where beauty lingers;

showing them attractive even in their decay. There will also be found in the same case a group of orclideous plants, a beautiful specimen of our English sine, the hop plant with its silky fruit matching in verdure its beautiful leaves; then the lily of the valley, "called as a nun," to use the words of Wordsworth, near to her towered abbey of the garden, as pure in colour, as elegant in form, and as pre-eminent for stately beauty as her fair namesake for humble grace.

The contributions of M. Tilman, the well-known manufacturer of the lily bicar, whose exquisite specimens of floral imitation, secured to him, it would appear, as effectually by skill as by the patents which he has obtained for them, will be found in the gallery of France (No. 698). Here you may see with your own eyes the hair, of every variety, and adapted to almost every phase of existence. First, the hair of the farmer, of orange blossom, sacred to the bride, destined, after being once worn, to be laid aside for the blush rose and jasmine of the East. To succeed these, when weary of them, she may assume here the seaweed garlands and coral chaplets of the Nereids, or array herself in wreaths of the beautifully minute water plants of the Naiads, which we see beneath the straggles and in their native element, with tendrils of the wet grass glistening around them. Would she enact

The fair Pastora by a fountain's side,

she may watch her own image in its waters, adorned with a coronal befitting her character. The quivering grass, the bearded rye, and corn of every description, are here collected; and even the autumnal parasitic flowers, blue and red, beautiful in all eyes save those of the farmer, are not forgotten, but are here in readiness when the time of the summer rose and jasmine is over, to supply their place in the adornment of those refined connoisseurs in costume, who never deign to wear even an artificial flower out of season.

Nay, would she wander even farther from the beaten track, here may she adopt the vine and ivy garland of the Bacchant, the oak leaf and acorn fillet of the Druid, or be crowned with bay like Corinne on the Capitol. All are to be met with here, scarcely less beautiful in nature itself; all save the wreaths for the dead, and these have no need to imitate, since nature herself supplies them in her own *immortelles*.

Beneath these specimens, in the same case, may be noticed as peculiarly beautiful, the passion-flower, white and lilac, with its fanciful associations of holiness; the lotus, pure and placid as sculpture among flowers, which grows in the deep, and the delicate roses in all their infinite variety; tropical plants of sunny hue, and the most delicate of the ferns. More exquisite still, and perhaps as specimens of the art of the flower, the most wonderful of all, are tufts of every variety of grasses, in different stages of progress towards ripeness, which, humble as they are, detain the eye long after it has been satiated by the charms of their more showy and pretentious rivals. From the reedy sedge to the small find here the perfect representatives. A rough, but intelligent, country lady, who stood beside me for some minutes, after a gaze of silent wonder, broke out in exclamation, "I had heard of the identity of these imitations, by remarking on their own vernacular, that they only wanted a 'bird's nest' to be nature itself."

A short distance from the cases of M. Tilman is an exhibition which, for originality of design and effect, is almost unique. It might, at first sight, appear to be a feature in the specimens of lace, to which I have already alluded; but, in fact, the collection to which our attention is now more particularly directed; but, as the lace consists less in the manufacture of the fabric than in the purpose to which it is applied, it seems but right that honour should be rendered to it here. In case 268, Madame Josephine Hubert, of No. 2, Rue du Grand Chantier, Paris, exhibits an entirely new application of lace in the formation of artificial flowers. The mere reproduction of flowers in lace, though not new in the material, as exemplified in the fabrics of England and Valenciennes, is not new in it, as in the Honiton and applique laces, is of course familiar to every lady. We have thus seen them produced in bud and blossom, in profile, and, as it were, full-faced; but in one single important feature they were identical—their all bloomed on a flat surface. It seems to have been reserved for Madame Hubert to exhibit them in the same exquisite material, but the originality of the design, and the beauty of the effect, or drooping, as we see them in nature, is a new and original shape, or expanded, capable, but for their delicacy, of being blown water. The petals of each flower are spread out separately, or folded over each other; they are convex or concave, as the chosen specimen demands, and, wonderful as it may appear, are complete even to the pistils and stamens. Here may be seen the rose, major convolvulus, and other large flowers, grouped together in a manner suitable for the decoration of the skirts of dresses, with little bouquets of herbs, and flowers arranged for the bosom. Their effect on a velvet dress must be delicate and striking in the extreme; but to show them to the greatest advantage, a dark background would always be desirable. I must not omit to notice one great advantage which the flowers of Madame Hubert possess over their rivals of cambric, wax, &c.—namely, even over the originals from which they were copied, and it is that they are all warranted to wash. This is an age of wonders, and I confess myself somewhat incredulous, otherwise it would be difficult to conceive it possible that any fingers less experienced and expert than those of the inventress could restore forms so fragile to anything resembling their original perfection.

In the number of this Journal for the 31st May, a plate was given of the celebrated *Victoria regia*, as it bloomed in the nursery-ground of Messrs. Weeks, of the King's-road, who had been successful enough to induce the royal family to blossom in the open air. Perhaps there are few of the more wealthy classes in London who have not paid a visit to this rare plant, either there or elsewhere. If, however, any one has missed this sight, she may still have an opportunity of seeing it reproduced in wax, in the collection of Mrs. Strickland, of Bond-street, in the North-west Gallery. I chanced to have seen the flower itself in bloom at the Botanic Gardens only the day before I first visited the studio of Mrs. Strickland in the Exhibition, and an imitation more faithful it would be difficult to imagine. The flower is of a most delicate white, with the blue and white water-lilies surrounding it, like a most beautiful waiting upon a queen. In case any of my readers should be unacquainted with the flower, I may observe that it is of a creamy white colour, with the inner petals pink; the outer leaves, including it as in a cup, are thickly spined or thorned, as though to protect it from harm. All these features are most accurately given, as may be imagined when it is known that the much leaf took a full month to make, and that the original plant is usually treated to a sight of the giant leaf on its reverse side, that ordinarily hidden by the water, which is most curious in its construction, looking, with its brown ribbed surface, more like wrought iron rusted by time than any substance of a vegetable nature; this view of it has also been repeated in wax, with equal success by Mrs. Strickland, who is, I believe, the only person by whom it has been achieved. Another beautiful production of her art is *Amberia nobilis*, first flowered by Mrs. Lawrence, if we mistake not, which won for her a prize from the Botanic Society. This is surrounded by the calms, the tregda (a butterfly among flowers), the supper flower, with its long tendrils, the magnolia; in fact, by many which would require a list to designate. I must not omit to recommend to the attention of those who are fond of flowers, as well as of effect, the clustered bunches of heaths: the flowers of one particular specimen, though scarcely as large as a barley-corn, are each supported by their individual stem. It will be evident to every one that Mrs. Strickland is an enthusiast in her art, possessing a perfect mastery over her materials, and as much of a genius as an artist, in the path she has adopted; and, when we are informed that lessons in this elegant accomplishment may be obtained for the purpose of the artist, the necessary materials are clean enough to be touched by fingers the most delicate, and may be arranged on a space little larger than could be covered by a cambric handkerchief; I must be allowed to recommend its acquisition and practice to my young friends, in preference to the knitting and crochet, which seem rather adapted for the recreation of those whose eyesight has grown dim, and whose hand has in some degree "lost its cunning." The artist, in the Exhibition, has also exhibited other species of artificial flowers, composed of Boss silk stretched across a most delicate work of twisted wire. They are rather curious than very pretty; and, as representatives of nature, are inferior to the well known feather flowers, or even those formed of dyed whitebone.

A beautiful bouquet, composed exclusively of human hair, is exhibited in a frame in the South-eastern Nave; and, although not presenting the same variety as the flowers, it is not inferior in its form, and the ingenuity with which the most minute details of the natural advantages of colour afforded by the material.

My next paper I propose to devote to a more detailed examination of some other features interesting to ladies, and to which I have here only cursorily alluded.



IONIAN ISLANDS AND CEYLON COURT.

THE IONIAN ISLANDS AND CEYLON.

Our Engraving shows almost the whole portion of space occupied by the contributions from the Ionian Islands and Ceylon, from both of which a much larger display might have been looked for.

The Ionian Islands have but few manufactures; their available land amounts to about 500,000 acres, and the population is not much above 250,000. They enjoy a beautiful climate, but are subject to hurricanes and earthquakes, and, occasionally, the oppressive heat of the suffocating sirocco. The vine thrives, and more than three-fourths of the cultivable land is devoted to vineyards, currant grounds, and olive plantations. The annual produce of currants is between 17,000,000

and 18,000,000 pounds, and of olive oil from 100,000 to 120,000 barrels; and of wine, about 200,000. The peasants' wives spin and weave coarse woollen cloth. Silk, especially scarfs and handkerchiefs, is manufactured at Zante.

In 1817, these islands, seven in number, and forming nominally a republic, but in reality a most exclusive and corrupt oligarchy, came under the protection of Great Britain; and it is said by those well acquainted with the islands, that, under due encouragement from the present High Commissioner, Sir Henry Ward, they might have occupied, with a really beautiful show of materials, manufactures, peasant work, trinkets, and models, a much larger and very attractive space in the Exhibition.

In the case shown at top of our Engraving is a gold embroidered Greek jacket, and two tastefully bordered knitted aprons, the work of a peasant girl at Corfu; below it, in a case, are silk scarfs and handkerchiefs, from Zante; purses, cigar-cases, tobacco-boxes, and bags in gold embroidery on velvet, the work also of peasant girls (and very tastefully worked they are), at Sant Maura; and gold and silver bracelets, brooches of hammered and filigree, from Corfu.

To the right of this little collection of Ionian goods are the articles sent from Ceylon. The round tables shown in the Engraving are composed of from thirty to five and thirty varieties of wood fitted for cabinet-making, and amongst which are varieties of teak, satin-wood, cocoa-nut, mahogany, and a number of light and dark plain, feathered, and shaded woods. The pillars, feet, and frame of the tables are of carved ebony, the divisions of the veneers in inlaid silver, and two of them are also inlaid in white and stained ivory. Thirty-seven varieties of timber are shown in blocks of about 18 inches long and 4 inches square, having one side polished. There is also an open case, showing the several sorts of cinnamon, and in which the perfect evenness and fineness of the best must satisfy most housekeepers, that, whatever the price, they seldom meet the best of this delicious spice. There are also models of coffee stores and drying platforms; the machinery for removing the inner skin of the berry; model of a building for carrying on Cherbaw's patent process of coffee-curing, in which the floor, instead of sacking, as in the ordinary drying-house, are of perforated metal artificially heated from below. In front are cases of gums and seeds, showing the castor nut, from which the oil is made; varieties of rice and coffee in different states. Then there are native-made nets, cloth, matting, medicinal oils prepared from various seeds; painted earthenware, amongst the specimens of which is a tea-pot of the King of Kandy, which would hold a couple of gallons. But viewing Ceylon as a land of elephants, spices, pearls, precious stones, and curious costumes, ruins, temples, customs, and races, the display is certainly but meagre, and one to which, we are inclined to think, Lord Torrington, Colonel Thompson, of the Royal Engineers, Mr. Tufnell, and others, could make many interesting and valuable additions.

BAY OF THE FINE ART COURT.

Our Engraving shows the centre stand, next the Nave, of this court, which, as our readers are aware, is devoted almost entirely to architectural models, decorations, and designs. The public are most attracted by the illuminated glass mosaics exhibited by Mr. George Henry Stevens of Stafford-row, Pimlico; the effect shown in a pair of twisted columns, tables entirely of the mosaic and with the mosaic inlaid in tracery on marble, and a specimen of heraldic emblazonry, is exceedingly rich, and shows that this style of ornament, probably the very first form, after precious stones, that mosaic ever took, is capable of being applied to vast varieties of monumental, heraldic, and house decorations. Mr. Stevens has spent some years in bringing his mosaics to their present perfection, and has, certainly, in the specimens exhibited, shown both artistic arrangement of colour and skill of workmanship. On the same stand are shown some very beautifully modelled terra cotta figures and vases, by Beauclerk, in clays of different shades of color. Slabs for tables in inlaid marble, designed by Gruner, executed by Woodruff, and exhibited by his Royal Highness Prince Albert. A china biscuit tazza, designed by J. O. Small, and modelled by Messrs. Small and Malling, Newcastle-upon-Tyne. A candelabrum, designed by Gruner, executed by Romoli, and also exhibited by the Prince. A new design for a candelabrum, by William Mossman, 17, Regent-street, Pentonville, in brass, made in 741 pieces, fastened by screws, and so contrived that the whole can be set up in a variety of shapes.

The remainder of the stand is almost entirely occupied by architectural models. First in size stands a very elaborately executed model of the Cathedral, in oak, by F. and J. B. Webb, cabinet-makers, of Taunton. The Royal Exchange and the Monument, modelled in cork, by Thomas Smyth, jun., at the cork manufactory, 49, Eas cheap; specimens, certainly, of care and skill. A composite column, after the Ionic, designed by Mr. Smalman Smith, architect, to represent the Exhibition; the capital is composed of initial letters and the Prince of Wales' plume; the column represents a bundle of rods, to show the union of all classes of society; the three kingdoms are displayed in the base, by the rose, shamrock, and thistle; and the spirit of union, to the disfigurement, as it seems to us, of the column, by three bands or garters round it. Else the column



BAY OF THE FINE ART COURT.

intention to apply to Government for the charter, and he had every reason to believe it would be granted; and having informed us that as soon as they were a legally constituted body they would probably consider the matter, we were informed by Messrs. Henderson and Co., that they were asking whether under these circumstances we should consider it running too great a risk to enter at once upon the execution of the work, as otherwise many weeks would unavoidably be lost, and the chance of opening the Exhibition in the last of May placed beyond possibility. In reply to his Lordship's inquiry, seeing the imperative necessity for immediate action, and desiring to render all the assistance in our power in furtherance of the important objects of the Exhibition, we expressed our willingness to run the risk, whatever it might be, and with this view we forthwith commenced drawing up the drawings and the necessary operations for the erection of the building.

As the time for the execution of the Building was so extremely limited, and being well aware, from experience, that when matters of business had to be decided by a committee composed of many persons, much valuable time was generally wasted, we requested the Commissioners, instead of referring us to the Building Committee, to select one of its members, either the chairman, Mr. Cubitt, President of the Institution of Civil Engineers, Mr. Robert Stephenson, or Mr. Brunel, and give him absolute power to deal with us finally on all matters connected with the arduous task we were then willing to enter upon. The Commissioners, appreciating the importance of the request, appointed Mr. Cubitt to fill this office.

It was now that I commenced the laborious work of deciding upon the proportions and strengths required in every part of this great and novel structure, so as to ensure that perfect safety essential in a building destined to receive millions of human beings—so entirely without precedent, and where mistakes might have led to the most serious disasters. Having established the necessary points, I set to work, and made every important drawing of the Building as it now stands with my own hand; and it was no small source of gratification to me, when asking Mr. Cubitt to look over the drawings I had prepared, to find that he not only had no desire to suggest alterations, but expressed his entire approbation of them all.

The Commissioners having carefully considered the merits of the various sites proposed for the Exhibition, amongst which may be named Leicester-square, Somerset House, Trafalgar-square, the Isle of Dogs, Battersea-Park, and Kensington Park, selected, after the most careful consideration, a portion of Hyde Park situated between the Serpentine River and the Queen's Drive, and gave us possession of the ground on the 30th of July, when we proceeded to take the necessary levels and surveys, and to set out with great precision the position of the various parts of the Building.

The drawings occupied me about eighteen hours each day for seven weeks, and as they came from my hand Mr. Henderson immediately prepared the ironwork and other materials required in the construction of the Building.

As the drawings provided the calculations of strength were made, and as soon as a number of the important parts were prepared, such as the cast-iron girders and wrought-iron trusses, we invited Mr. Cubitt to pay a visit to our works at Birmingham, to witness a set of experiments in proof of the correctness of the calculations. We first placed upon each part, the greatest load it could ever in practice receive, and proceeded to show that above four times that load was required before fracture would occur. These proofs were made on the 6th September, when Mr. Cubitt was pleased to state that he never witnessed a set of experiments of a more conclusive nature. Being thus satisfied by actual experiment that the proportions of the various parts of the Building were such as to ensure perfect stability and safety, the preparation of the ironwork and other materials was pushed forward with the greatest vigour, and large deliveries were made in the Park within the next three weeks, so that on the 28th of September we were enabled to fix the columns in its place. From this time I took the general management of the Building under my charge, and spent all my time upon the works, feeling, that, unless the same person who had made the drawings was always present to assign to each part as it arrived upon the ground its proper position in the structure, it would be impossible to finish the Building in time to ensure the opening on the 1st of May; and I am confident that if any other course had been taken, or if, as is usual in the construction of large buildings, the drawings had been prepared by an architect, and the work executed by a contractor, instead of, as in the present case, these separate functions being combined by my making the drawings and then superintending the execution of the work, a building of such dimensions could not have been completed within a period considered by experienced persons altogether inadequate for the purpose.

The erection of the Building, now fairly commenced, was pushed forward with all possible speed, and a good notion of the amount of work may be obtained from the fact that at one period we fixed as much ironwork every day as would be required in a first-class passenger station of this town, which is one of the largest in the kingdom.

It was not until the 31st of October that the contract with the Commissioners was completed; up to which time we not only had received no order for the building, and no payment in respect of the work done, but we had run the risk of expending upwards of £20,000 without having in a legal position to call upon the Commissioners for any portion of the sum we had so expended, and such was the appreciation of the work done in this matter, that Lord Granville was pleased, in the presence of the other members of the Committee, on the 10th of November, that they were of opinion, that but for the courage evinced by Fox, Henderson, and Co., in commencing the work without any order from the Commissioners, the Exhibition of Industry of all Nations would never have taken place.

Perhaps the most difficult and hazardous, and certainly the most interesting portion of the work, was raising the sixteen ribs of the Transept to their places. A month was the shortest time assigned by any one for this operation. We commenced on the 4th of December, and succeeded in raising two in two courses of that day.

Two more were safely deposited in their places in the presence of His Royal Highness Prince Albert on the following day, and the last pair on December the 12th, so that the sixteen ribs were all placed in eight working days.

As the Building progressed, I was assailed on all sides, not only by unprofessional persons, but by men of high scientific attainments, who, notwithstanding the careful calculations which had been made, and the satisfactory proofs to which all the important parts were individually subjected, as soon as these parts were put together, producing a structure of unparalleled lightness, doubted the possibility of possessing, as a whole, that strength which was necessary to make it safe against the many trying influences to which it must necessarily be subjected.

One gentleman, after complimenting me upon the beautiful appearance of the Building, stated his belief that it would never come down unless it tumbled down, and which he had no doubt, in his own mind, it would; or that the first gust of wind would blow it down like a pack of cards. Another, holding a high scientific appointment under Government, after a long investigation of the various parts of the Building, expressed, at the Institution of Civil Engineers, a belief in the entire want of safety in its construction; and after explaining the mode of connecting the girders with the columns by means of projections technically called *snugs*, went on to indulge in an airy prophecy that a wind exerting a force equal to 10 lb. per superficial foot would bring such a strain upon these *snugs* as to break them all off, and cause them to fall down in showers. I may just remark, that, since the expression of this opinion, the wind gauges around London have registered, in the late storms, upwards of 20 lb. per foot; and I have pleasure in informing you that the encouraging predictions of this gentleman, as well as those of many others, have not yet been fulfilled. It may be amusing and not uninteresting to enumerate, briefly, some of the difficulties and dangers which were foreseen.

1st. We should never get through our work in time.
2nd. The foundations were defective, and would surely give way.
3rd. The Building was more like scaffolding than anything else, and was so light that it must tumble down.

4th. The weight of goods and people in the galleries would be sure to bring down the Building; and, if the weight did not produce the desired result, the vibration caused by people walking, or more especially running, would be sure to do so.

5th. The girders expanding by the heat of the sun would push the columns out of their places, and in doing so would be sure to break them and let down the Building.

6th. That if it should happen that the weight and vibration did not produce the effects expected, the enormous weight of the arches and windows would be brought into action during the performance of the various parts of the work.

7th. That if the Building was not blown down, the arches or windows were so fragile that they would assuredly be blown in, or out, but it was difficult to say which.

8th. That the glass was so weak that it could not resist a gale of wind, but would inevitably be blown to pieces.

9th. That the wind did not act as was expected, firing cannon in Hyde Park, on the opposite side of the Serpentine, could not fail to demolish the windows.

10th. That the first hailstorm would have the whole roof without glass.

11th. That by the vibration of the masses necessary the building would be generally shaken to pieces in the construction, and must consequently fall down.

12th. That some of the ribs, intended for the safety of the structure, containing the large windows, would be blown to pieces by the wind.

13th. That the vibration of the masses necessary for the construction of the building would be brought into action during the performance of the various parts of the work.

14th. That the vibration of the masses necessary for the construction of the building would be brought into action during the performance of the various parts of the work.

15th. That the vibration of the masses necessary for the construction of the building would be brought into action during the performance of the various parts of the work.

16th. That the vibration of the masses necessary for the construction of the building would be brought into action during the performance of the various parts of the work.

17th. That the vibration of the masses necessary for the construction of the building would be brought into action during the performance of the various parts of the work.

18th. That the vibration of the masses necessary for the construction of the building would be brought into action during the performance of the various parts of the work.

19th. That the vibration of the masses necessary for the construction of the building would be brought into action during the performance of the various parts of the work.

valuable improvement in the architectural beauty of the Building; to Mr. Owen Jones, for his many beautiful designs for the embellishment of the Building, and to whose taste in decorative art is owing that splendid appearance which has charmed the eye of every spectator; to Messrs. Cochrane and Co., and Mr. Johnson, for the energetic manner in which they prepared the castings; to Messrs. Down and Co., for their promptitude in delivering the timber; and to Mr. John Cochrane, and all persons who, in any way, were employed connected with the work, for their willing services, so indispensable in carrying out a contract of such unprecedented magnitude. When the Royal Commissioners confided to us the construction of the Building for the Exhibition of Industry of all Nations, I felt in some degree the credit of England was in our hands—that we had it in our power to achieve that which would prove eminently successful—or in failing to do so would be a source of the most serious disappointment and disgrace—and that we were therefore bound, by considerations of no ordinary kind, to exert every effort in our power to carry the work to completion in the shortest possible time, and at any personal sacrifice, and without regarding the question of expense, the more especially as His Royal Highness Prince Albert had invited the World to this great festival of the 1st of May; and it was essential, as a point of national honour, that this vast edifice should be ready for the reception of the guests. I need not remind you that we completed the contracts, and that our beloved Sovereign presided at the inauguration on the day which had been originally appointed.

I feel a peculiar pleasure in having carried out this great undertaking in the construction of it is not a temple in which the representatives of nations were most together for the purpose of adjusting matters of strife, or questions of warfare, but one in which the Prince has invited all the family of man to assemble in harmony and good-will, and where jurists composed of distinguished foreigners and natives met to settle the most vexatious disputes, and the five continents of those beautiful objects of art and manufactures which are the happy results of peaceful commercial emulation.

It is no small honour to England to have set this noble example; and here let me quote a few beautiful lines from Mr. Cole's Introduction to the Catalogue, which appear to me so descriptive of England's high position and of the feelings which all should cherish when viewing the collections of the world's productions:—

"It may be said without presumption that an event like this Exhibition could not have taken place at any earlier period, and perhaps not among any other people than ourselves. The friendly confidence reposed by other nations in our institutions; the perfect security for property; the commercial freedom, and the facility of transport which England pre-eminently possesses, may all be brought forward as causes which have operated in establishing the Exhibition in London. Great Britain offers a hospitable invitation to all the nations of the world to collect and display the choicest fruits of their industry in her capital; and the invitation is freely accepted by every civilized people, because the interest both of the guest and host is felt to be reciprocal. The work is done, and the collection made of the productions of 15,000 exhibitors, working with the ability God hath given them. To the eye we may say with St. Paul, 'In lowliness of mind let each esteem other better than themselves'; and to spectators we may utter the hope expressed by the Prince, that 'the first impression which the view of this vast collection will produce, will be that of deep thankfulness to the Almighty for the blessings he has bestowed upon us already here below; and the second, the conviction that they can be only retained in proportion to the help which we are prepared to render to the other; therefore, only by peace, love, and ready assistance, not only between individuals, but between nations of the earth.'"

Again thanking you for the honour you have this day conferred upon me, the recollections of which will ever be effaced from my memory, and also for the kind patience with which you have listened to my remarks, I conclude by wishing you the long enjoyment of health and of that happiness and prosperity which are the sure results of those enlightened views which are fast spreading over the world, and which the people of Derby have been among the foremost to advance.

The next toast given was the "Health of Mr. Paxton," which was proposed in highly complimentary terms by the Mayor.

Mr. Paxton returned thanks at some length; and, in the course of his observations, alluded to the unexpected risk which the Crystal Palace had run from the recent balloon ascent.

A great variety of toasts followed, and the company separated highly delighted with the opportunity afforded them of testifying their admiration for the character and the talents of their now distinguished townsmen.

[We hope to be able to present our readers with an authentic Memoir of Mr. Fox in an early Number.]

ECCESTASTICAL VESTMENTS, BY HALLE.

We engrave two other specimens of M. Halle's rich embroidery for ecclesiastical costume. The designs are very elaborate, but, of course must mainly depend for their effect upon the costly material in which they are worked.



PRIEST'S VESTMENT.—VAN HALLE, BRUSSELS.

EGYPT AND TUNIS.

We now pass from the Asiatic to the African continent, and propose to take a survey of the contributions of Egypt and Tunis to the Exhibition, the former of which, in addition to their intrinsic merit, are interesting from the impracticable halo of association that surrounds the land from which they come—a land which has been the seat of four civilisations, essentially differing from each other, and spread over the lapse of 4000 years; for while Italy and Greece have been at particular periods more resplendent by cultivation of the arts, Egypt is the only country that still shows in its monuments distinct traces of four successive epochs of civilisation, a Phœnician, a Greek, a Roman, and an Arabic. This, no doubt, springs from the peculiarity of its physical geography, as a country of vast territorial wealth within a narrow space, and forming the connecting link between the Red Sea and the Mediterranean; while to the Englishman, more than to any other inhabitant in Europe, Egypt has become, since the development of steam navigation, that portion of the East the political condition of which bears most immediately on the communications between our vast Indian empire and the metropolis. There was a time, and that not long since, when our relations with the Government of that country were of the most hostile nature; but it is satisfactory to think that the most amicable intercourse now reigns between them. No Englishman in his senses doubts of a military occupation in Egypt similar to that which was attempted by France. The objects of the British Government limit themselves,



METRE.—VAN HALLE, BRUSSELS.

first, to the exclusion of any European power from military possession of the key of the Mediterranean and Indian seas; secondly, to the development of our commerce in Egypt; thirdly, to the facilitation of the transit of the Nile traffic. And it is satisfactory to find, that the present Peace shows every disposition not only to promote and protect our passenger traffic, but to cultivate the most amicable relations with the Government and inhabitants of this country.

In Egypt the extraordinary change that has been imparted upon the administration, the commerce, the agriculture, and the manners of the higher classes (for those of the great majority of the people remain untouched) has been effected by the will of one man. It is true that Mahomed Ali sometimes misapplied his resources, but there can be no doubt of the extraordinary mental activity of the individual; there can be no doubt that all the productions of Europe have been subjected to study; that their application to European commerce has been tested, that the climate and soil have been studied, and that vast numbers of experiments have been made in the vegetable world, and that many plants have been successfully naturalised, while the indigenous products have been much improved in quality.

The Nile is the great feature of Egypt; let us, therefore, begin with the upper country. Highest of all, are the articles from the Belledah, Asoudin, elephants' tusks, sections of ebony from Senaar, a rhinoceros horn, and other objects from the "land of the blacks," as the term means, of which the most valuable is gum. Upon this trade the genius of Mahomed Ali, remarkable as it was in many respects, but not a favourable influence; the European regulations and police, which he established with absolute power, rather frightened away than encouraged those who had objects of this description to sell from the interior of Africa; but, as the system of the present Pacha is less stringent, there is every prospect of an extension of this portion of the trade. And to this object, unquestionably, nothing would so much tend as the establishment of a fair, once every winter, at Lessawon, which is the highest point that can be reached by steamers from Cairo, and is on the borders of Nubia.

In Upper Egypt itself, the principal objects of production are dates, the fig, and the olive, of which the last is the most valuable feature of the Egyptian landscape, and which is almost as familiar to the eye of the European by thousands of faithful representations as to the Egyptian himself. On closer examination of the vines in which they are kept, we see the varieties of their colour, some being of a dark red, some of a light brown, and others of a cream colour. Not only are the dates an excellent food for the common people of Egypt, but we see in the Exhibition, innumerable of the varieties of grapes to which they are applied: here are the crates of the grapes of the Nile, the thick-skinned persimmons, and by servants which the masters eat; and, above all, over specimens of the cord into which the palm fibres are made, and a coarser description of which is in universal use in the Nile boats. When we ask that the trunk of the palm is used for timber, that the date is used as fuel, and that the palm is used as a constituent for the preparing of human food, and that, moreover, a tedious, heavy sort of fibre from the palm is used in cleaning the skin in Egypt, it is scarcely possible to overrate the value of this tree.

Sugar-canes and sugar-loaves are also to be seen in the Exhibition, the latter from Ibrahim Pacha's refinery. This remarkable man made great efforts to push the sugar cultivation in Egypt, for which there can be no doubt that both soil and climate are well adapted; but the great proportion of the sugar used in Egypt is still imported from Europe; for

whatever the will of Ibrahim Pacha may have been, or whatever it be the natural capabilities of Egypt, the incurable indolence of the people, and their indisposition to labour, seem to be an invincible obstacle to Egypt ever coming into Europe in price and quality of her produce. It is the true calling of Egypt is unquestionably, that in which Nature herself—the Sun and the Nile—have the largest share in production. It is by her wheat, her cotton, her beans, her barley, her sesame, her linseed, and her flax, that Egypt can increase her wealth with certainty. It is agriculture and commerce, not manufactures, that Nature has assigned to Egypt in the territorial division of labour.

Of these the most important is certainly cotton, from the great extension of its culture during late years. We particularly recommend attention to a specimen of Sea Island cotton, cultivated by Mr. Larkins, in the environs of Alexandria. This ingenious gentleman has devoted many years to the horticulture and agriculture of the Egyptian climate, and has been the means of reclaiming from the lake Mareotis a large tract of land, which would have been otherwise useless, by diverting from the canal a portion of fresh water, which, washing away from and alluvial soil the saline particles, has left the earth cleansed and productive. He has also been at pains to introduce, upon a most extensive scale, the British system of agriculture, and the Belgian method of cultivating flax; but the inveterate habits of indolence and jifery in the natives have prevented the experiment from being so successful as could have been wished.

In the Exhibition may be seen one of those curious machines with which the Egyptians conduct their agricultural operations (marked 174 in the Catalogue), which shows that the ease-loving countryman makes his own weight contribute to do the work, while he is saved the trouble of walking. The Catalogue states that the object of this machine is to sow seed; but, unless we are much mistaken, it is the machine used for the double purpose of thrashing corn and cutting the straw; the oxen performing a rotary motion until all the straw be cut and the corn squeezed out.

Of other vegetable productions may be seen specimens of opium and senna, which are well suited to the climate; tombak, which is used as a substitute for tobacco in the water-pipes; and rice, which is grown in very large quantities on the low grounds of the Delta, not far from the sea, and cleaned for the most part at Damietta and Rosetta, where mills have been established on the American principle with great success. Nor must we forget the list of vegetable products, and the rosewater of the Fayoum, which is so frequently mentioned in the songs of the Arab poets, whole tracts of land being devoted to this culture, and in the reason of plucking diffusing fragrance through the smiling land. It is also in the Fayoum (which is a district to the west of the Nile above Cairo) that are to be found the greatest quantity of olives, large plantations of which have been re-established by Ibrahim Pacha in various parts of Egypt, for the culture of olives had much fallen off under the Mamelukes.

The mineral productions are very numerous, the most magnificent of which in the Exhibition are the slabs of Oriental alabaster, from the quarries to the south-east of Cairo, in the Desert, and out of which material the columns of the new Mosque of Mohammed Ali, in the citadel of Cairo, have been constructed. There can be no doubt, that, if the value and the beauty of this mineral were better known in Europe, and if a railway, however made and cheap construction, could be established to Beni Suef, on the Nile, it might become an article of export of the greatest importance. As a native manufacture, having a mineral for its component, we may also draw attention to the porous water-bottles made at Gheneh, on the Nile, which are in universal use in all parts of Egypt. If we descend the Nile to the entrance of Cairo, we see another mineral production, in specimens of the petrified forest of a valley in Mount Moka.

The Cairo articles must be regarded under two aspects—those which are indigenous, and those which have been introduced by the late Pacha, as subservient to his military and political system. The latter need not engage our attention, as they have no local colour, however evidentiary they may be of the superior mental activity of the family of the present Pacha. Of the former, we may direct attention to the saddles of crimson velvet, the pointed one being most curious in Europe, and riding, giving a good hold to the knee; but the high saddle is the most interesting, for it is of the same form as that in which Saladin and the Paynim host used to receive the shock of Frank Crusader, the saddle of Nigm-Edlin, whose name is so associated with the expedition of St. Louis to Damietta, being still an appendage of the Mosque, that, after six centuries, bears his name.

In no respect had Mohammed Ali, to have his impress upon this country, been more successful than in his efforts to promote public instruction; and the school he established in Egypt will unquestionably do more for his reputation than the wars in which he has been engaged. The printing-press at Boulak has been sufficiently described by travellers; and those who wish to see the Egyptian edition of the "Arabian Nights" entertain themselves being remarkable, not so much for their beauty of print and paper, as for which they cannot compete with Europe, as for the excessive lowness of price.

The articles of dress are so numerous, and are brought in such quantities by travellers to this country, that we need not take up the reader's time any further; simply remarking, that, while many of the imitations of European manufactures have not been successful, as pecuniary speculations that if Tunis came, established at Foush, has been in operation for many years, and has now become the granary of the Roman Empire, when we see its excellent, but unpretending soap, made of olive lees and soda of the country; its sponge, which is so inferior to that of the Archipelago; its umbrella hats of wadding to keep off an African sun, and its coarse culinary utensils, we feel that this is not the luxury of Damascus or Constantinople, still less of the gorgeous descriptive poets and romancers of the East; but it is Tunis itself, and so arranged as to produce a nearer approach to the illusion of foreign travel than any other portion of the Great Exhibition.

DECORATIONS, FURNITURE, &c.

A LITTLE reflection will show that the subject of furniture is infinitely more important in England than on the continent; because much more money is spent here, by the middle classes of all incomes, on the various branches of trade required to fit up a house, than is ever thought necessary in other realms. Whether upon marriage, upon taking another dwelling, or upon a plea of necessity, ladies are always ready to receive furniture from the factory to displace that which must certainly have one of two faults; either it is not fit to be seen, or it is not old enough to be valuable for its antiquity. The accumulation of this sort of property is surprising, for apartments are hardly considered to be well dressed until there is literally little chance of human motion, and no possibility of adding to the treasures. With the last century, too, expired the empire of fashions which, during the lifetime of the Sovereign whom they found upon the throne, reigned steadily over the whole of the community in solitary grandeur, without disturbance from any interloping modes; at present, the rapid succession of tastes, and of late years their contemporaneous existence, having allowed purchasers to render their saloons little more than museums for every phase of ornamental art, it becomes easy, by small additions, to incline the balance in accordance with a prevalent mania; but these additions are, for the same reason, constantly demanded.

The order in which various leading styles of decoration have reappeared is tolerably uniform. Since the time of Louis XVI. we have had Roman, Louis XV., and Greek; then Gothic, Louis XIV., and Egyptian have followed as links of a chain terminating in Louis XV., Elizabethan, Louis XVI., Italian, Gothic, Louis XIV., and Renaissance. Thus, in the species of Greek, or, as we call it, classic furniture, but two specimens of high merit have come under observation: one is the ebony table inlaid with silver, by Hancock (p. 499); the other is the chair by Jeanneret (p. 477); both are carefully moulded upon antique ideas, and deserve credit for their inherent unobtrusive elegance. They recall the "High" fashion, as it was set by the predecessor of the present distinguished amateur, and are interesting to those who have not frequent

opportunities of seeing the as yet undisturbed interior of some of the large houses which were furnished forty-five years ago.

We appear at this time to have just entered upon the last mode of the cycle, and of its merits the reader will be reminded by the illustration (p. 271) of one of the largest works of this class in the Exposition, the side of a library, by Holland and Son. In spite of the unpleasant colour (which will disappear) of the newly worked wood, and of the perforated panels, there are about this, as also about nearly all other English specimens of furniture exhibited, three qualities which distinguish them in a very remarkable manner from nearly all their foreign companions. These three virtues, for such they fortunately happen to be, consist in fidelity of adherence to the style employed, in a peculiar feeling of design, and in undeniable superiority of execution.

No class enjoys so many opportunities of seeing the most recherché

work as the Russian nobleman, when he is allowed to travel; and such a connoisseur, talking to an English acquaintance, was triumphantly proving, what our countryman could not see, that the French divides two, and only two states of feeling for decoration—the western one considerably mixed with elements foreign to it, but the eastern portion nearly free from any alloy of Antiquity; and he afterwards urged that there was no truly national taste in Russia and Germany, as Parisian fashions for every sort of ornament were always eagerly watched. Ten years of observation had not led to a false conclusion, and the reader is recommended to seek himself the outward marks of the difference. He will notice on one side great elegance of proportion, vivacity of light and shade, and wonderful fluency of design, mixing with a malicious, almost a wicked, carelessness as to whether a piece of furniture shall belong to any given style at all, or belong equally to three or four, or



PAPER PATTERN.—MESSRS. TURNER AND CO.

posed to sterner dignity, extreme breadth of light, and a remarkable air of usability, united, on the other hand, to a sometimes pedantic adherence to the style employed, and a feeling of design, which is followed by a train of thought, it will suffice to add, that a beauty in the one, case and grandeur in its antagonist are attained; it must be left to the idiosyncrasies of the spectator to decide which is preferable for himself. Taking, however, an eclectic view of the productions of each school, it will be a pleasant task to point out those productions which are best of their kind.

In the Eastern Nave, the bed, by Leislter, of Vienna (represented on p. 25), is not only one of the most sumptuous productions, but is also grander than any of its English fellows; it is, indeed, a state bed, being eleven feet long by nine feet wide, and thirteen feet high, made of zebra wood. It is an excellent example of the general criticism above enunciated: every portion is an isolated beauty; all are grouped with admirable skill to obtain relief by shadow, and (what no British would have been bold enough to put forward had he thought of it) the supports of the head are not like, though somewhat resembling, those of the foot. The head is occupied by a beautiful Angel of Peace in an arched niche, placed between panelled-work, and at the foot are representations of our first parents, whose place is sufficiently defined in the Engraving. The putti are really "little loves," and the ornaments are very effective. Here praise ends. While the foliage is Gothic, and the figures, with the decoration, Italian, the mass of the work is of modern Renaissance feeling; neither the wood, nor the work agree well, and the execution seems hurried. The canopy (in which the noble dreams are lurking) is a vast cavern's roof, a fault which shares in common with the English beds. One cabinet-maker, after looking at it minutely, said, "They have better tools than I thought."

Totally opposed in spirit is the amboyna inlaid table, by Caldecott (28), in an Elizabethan taste, and not a little marked with the dignity of simplicity which is attributed to the best efforts of London houses; the pretty arabesque border and centre have been engraved on the same Engraving, and will serve to direct attention to the reality, which processes, as many other inlays profess, to be of unstained, i.e. self-coloured

woods. This must be considered when similar works hereafter come into these pages.

The style of Louis XV. is represented in this sheet (page 28) by a pier-table and looking-glass of very considerable dimensions and pretensions, by Holland and Sons. It is one of those works which at once challenge grand drawingrooms for their only hesitation: its height alone (12 feet) would prevent its entrance into many good town houses and the boldness of the design forces the spectator to retire as far as he reasonably can, to see it all at once. Then it appears that the frame of the mirror, which is very carefully carved as bullrushes and other aquatic plants, with birds, does not quite harmonise with the noble stand of the pier-table; this, from the dexterity of its arrangement, appears far larger than it really is; and the reflection in the lower glass, making a complete circle, doubles the little orchestra which nestles at the base: here no trickery of workmanship is employed; the back is finished for equal effect with the front, which is in the very best period of the style. The shape of the glass frame must not be unnoticed.

A very little consideration will show that the beautiful little walnut-wood frames from Tuscany (page 222) are not very far removed from the group (page 28) produced in the East Indies, in so far as the fashion (Roman) of the time of our Charles is concerned. The *Dalbergia latifolia*, or blackwood, somewhat resembling veined ebony, and now to cabinetmakers, has been worked at Bombay and Madras, from designs by the London carver, Rogers, into a table, flower-stands, tea-caddies, a candelabrum, and cheffoniers: a specimen of each of the three last is before the reader. It is interesting to perceive that the native operatives have not conventionalised the details, but appears to have kept more truly than the Chinese habitually do, to the spirit of the original. This, if correct, clearly betokens a feeling for art in our Eastern fellow subjects which may lead to serious, though by no means grave consequences.

The Louis XVI. grate (page 427), by Pierce, on which considerable pains and thought have been bestowed, is a mass of brilliancy from the use of bright steel and or moulu, and is hardly so happy as usual in the



PAPER PATTERN.—SCOTT, CUTHBERTSON, AND CO.

fender; it is less attractive, therefore, to the critical eye, than the sycamore (page 327) exhibited by Italy and Bonn. Their style (Italian) has been happily chosen as admitting the introduction of glazed tiles, with floral designs. The dogs merit the honour (page 496) awarded to them, of a separate illustration: the esplanade being very carefully and skilfully modelled; but the tower on only portion, which centre is strongly with the silvery globe, is ill-timed. The grate by Debes (page 24) is one of the most classic and most skilfully executed for a considerable time. Still, it is with the ornament in this again the need of manufacture; but, in effect, it is very different from those just mentioned.

The position which it is destined to occupy is indicated at page 394, where the other portions of the decoration are employed for the peculiar phase of the Elizabethan style which has been employed. The fender is equally an object of merit for its variation from the usual arrangement of such objects.

Such remarks from Paris two window-blinds, or transparencies: one can see a landscape, of which the most prominent features are a church spire and a tower, and also a view of Paris (placed on the same pedestal); this is far less attractive than the other shown on p. 28, in which all the necessary light has been kept in the lower



STOVE, BURNISHED STEEL, INLAID WITH GOLD.—MESSRS. JEAKES AND CO., GREAT RUSSELL-STREET.

gaining all their natural brilliancy without losing breadth or general light; the design is a very pretty arrangement of colour, and is full of it, as, according to the Watteau style, it ought to be.

There does not seem to be any good reason for stating that the manufacture of paper-hangings, printed from blocks, can be traced earlier than the 17th century, when flock and coloured papers are sufficiently described to show that they were in their infancy; at the end of the century, however, they had grown to be an object of Parliamentary attention, and were taxed.

This did not so much impede their progress, and in 1770 the English makers taught the French, whose execution and design were inferior; and they retained their superiority until the last fifty years. From that period, paper-staining has been a favourite branch of manufacture in Paris, and it is only within the last ten years that the London houses have begun to re-assume, if not their superiority, at least their equality: at present, a French maker expresses his opinion that there are no very wonderful specimens in the Building, and that the continental are certainly equal to the English works.

In 1784, Jackson, of Battersea, a manufacturer, published a pamphlet on the invention of printing in chiar' oscuro, and its application to paper-hangings, which he executed in imitation of the most celebrated classic subjects; and various attempts have since been made in the same path: the last, and one of the boldest, is that of Jeffrey and Allen (engraved on this page), who have used what they considered the best portion of the Elgin frieze without any repetition, in twenty-four feet of length: the particular colour-

ing appears to have received the attention of Messrs. Owen Jones and Dixby Wyatt. This will be found on the south side of Bay E 75 (on the ground-floor).

Scott, Cuthbertson, and Co. show a simple and handsome Tudor



PAPER 'L' STEIN.—JEFFREY AND ALLEN.

panelling in the Eastern Gallery. The effect of the gold upon a white ground, as the paper is hung, is necessarily much softer than the drawing will suggest: the border, however complex, is by no means confused; much of this may be owing to the quantities of colour, which,

as in their other paper already illustrated (p. 498), is a bold attempt at reconciling apparently equally forcible colours.

Turner's *crise* pattern is particularly elegant and lady-like. These patterns demand unusual attention, on account of the precision claimed for the manual labour of printing the blocks. The test is very simple, and the same part of the sheet of paper may receive ten or a dozen blows from the blocks without slipping, or causing a faulty impression



CARVED BRACKET.—ROGERS.

This pattern is a design by Marchand of Paris. Underneath it will be seen two patterns, which possess the property of altering their appearance as the eye of the spectator moves, becoming alternately light on a dark ground, and dark on a light ground patterns. This effect of "glancing," as it is now termed, has not been introduced by this house so much as twelve months, and is still a novelty. They are in the same South Gallery (France).

Townshend, Parker, and Co. have an arabesque paper pattern, quite good enough for hand painting. This certainly stands a chance of being considered the most praiseworthy of this class of productions.

534) gain by the contrast: for their purity and neatness of outline, joined to the solidity of the flocking, are well set off by the general deep tones of the arabesque. As being especially worth consideration, their position should be indicated. It is in the agricultural machinery (Class 1.), and on the back of the wall of the Sculpture Court (i. e. Bay Q, 27).

BRACKET. BY W. G. ROGERS.

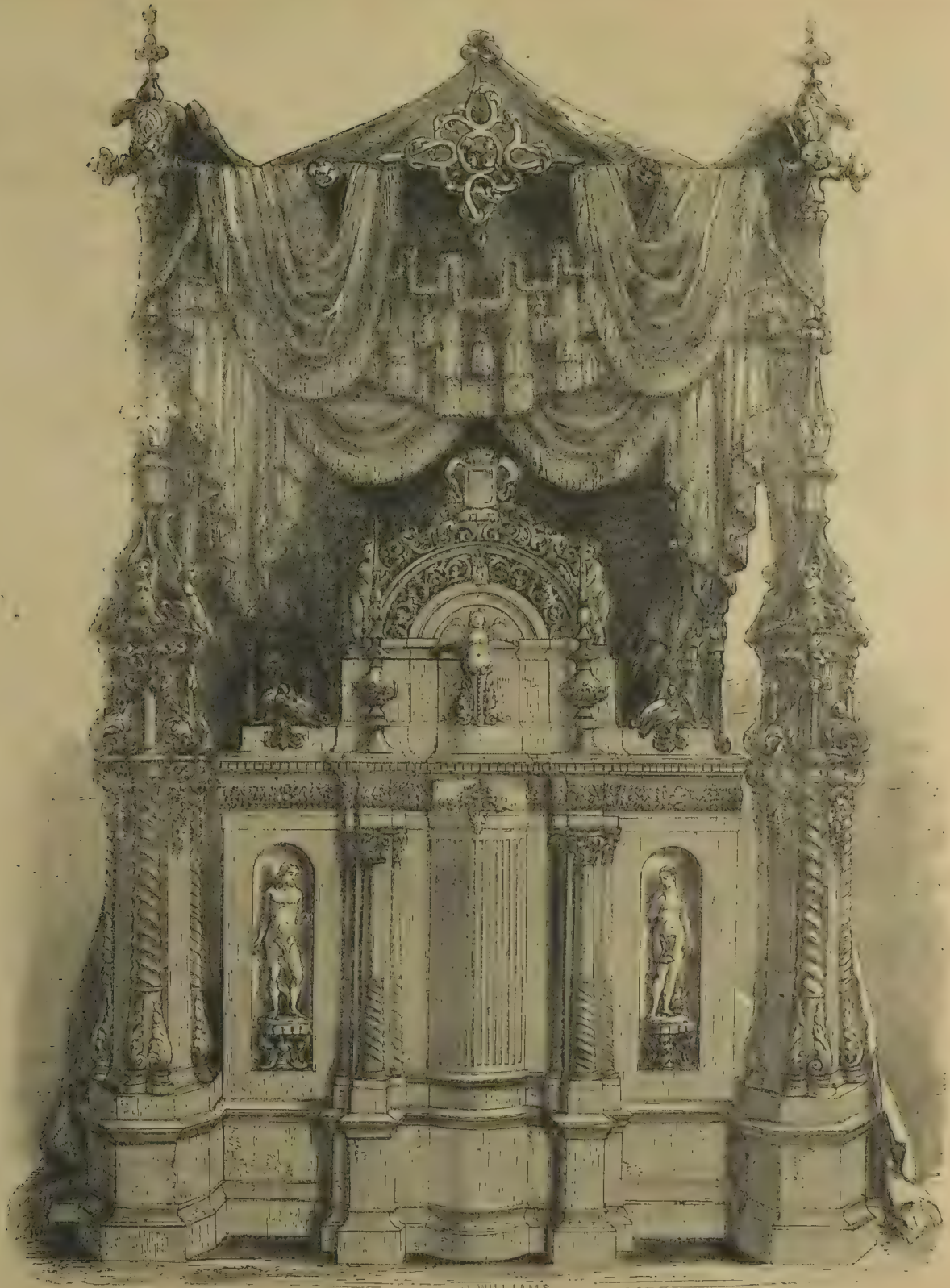
This is one of two brackets exhibited by W. G. Rogers, showing a combination of carved wood and porcelain; the boys in the latter material executed by Chamberlain, of Worcester, from models by the exhibitor, are sitting in a mass of foliage gilt and burnished. The style is decidedly rococo, but may occasionally prove effective.

ORNAMENTAL CABINET. BY DOWBIGGIN AND CO.

A richly ornamented commode exhibited by Messrs. Dowbiggin and Co. stands in the front of the furniture department in the Western Nave. The design is by Gruner and is very chaste and beautiful. It introduces various coloured woods, the panels being ornamented with marqueterie and carvings; and there are paintings upon china after Raffaele, in the centre, as well as on the pilasters. The whole is finished with richly gilt mouldings. Altogether we have seldom seen a more elegant production of the kind.



INLAID CABINET, DESIGNED BY GRUNER.—BY MESSRS. DOWBIGGIN.



AUSTRIAN REDSTEAD.—BY LEISLER.

BALMORAL CASTLE, IN WOOD. BY J. H. GRIGG.

This is described as a "mechanical picture," being composed of 700 pieces of wood, all natural colours. It is exhibited amongst several other works by the same person, J. H. Grigg, of Banwell, Somerset, who describes himself as a "wood artist," but which are only remarkable for the curiosity of the thing.

ORNAMENTS IN PAPIER MACHE. BY BIELEFIELD.

The specimen of *papier maché* ornament which we engrave in our present sheet will tend to illustrate the variety of subjects to which this material is applied at Mr. Bielefeld's establishment.

THE BUILDING STONES AND SLATES.

Few persons not directly concerned with the actual construction of large public buildings have any idea of the great importance of selecting fit material for such purposes, and fewer still, perhaps, were aware till the study of the Great Exhibition might suggest the fact, that there exists in our own country a large and varied series of such material, including almost all the kinds of stone known in the world. A notice of the building materials, therefore, and a comparison of the English with foreign articles of this kind, will be found useful and interesting.

There are so many different uses for stones that the subject requires some subdivision. Thus, we have freestones of all kinds, flags, flags,



ACETIC PICTURE-FRAME, IN WOOD MOSAIC.



PAPIER MACHE ORNAMENT.—BIELEFIELD.

ON our review of the Halifax contributions, those of Messrs. John Southworth and Co., of that town, were inadvertently omitted. The contents of this show, and furniture *danahs*, together with printed portraits or *laxangs*. The latter are by far the most tasteful productions, the colours being brilliant, and the general effect rich and agreeable. The printing, however, from the style, appears to be the work of Messrs. Swainson and Dennis, the fabric being manufactured by the exhibitors. Some of the table-covers are good and effective in design, but the danak furnishings might be more relied in taste. As a rule, however, the display is a creditable one.

THE most numerous and valuable of the export manufactures exhibited by Messrs. Myer, Mought and Steel, of Hutton, the quiltings are rated to be of good "water," instead of "good quality," as intended.



TRANSPARENT PAINTED BLIND.—EACH.



GILDED PIER TABLE AND GLASS.—MESSRS. HOLLAND AND SON.

PIER TABLE AND GLASS. BY HOLLAND AND SONS.

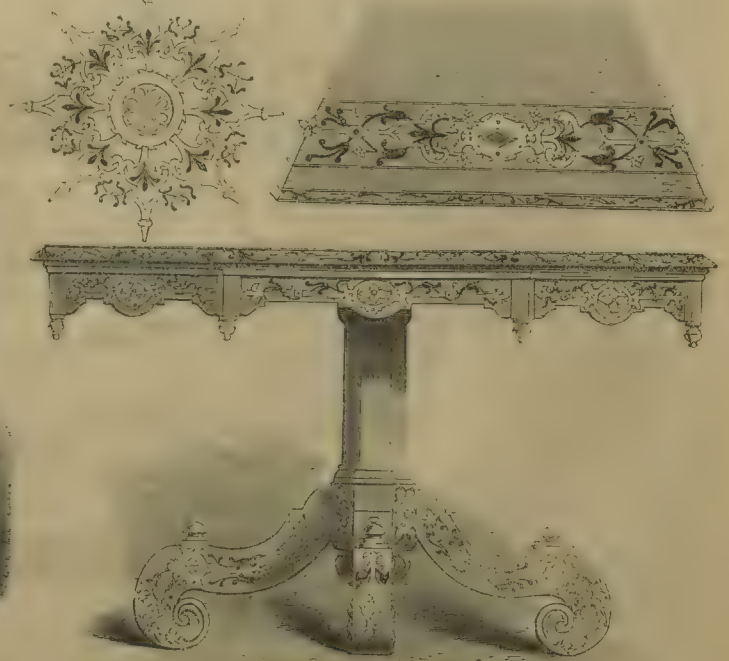
This piece of furniture is very ambitious in style, and profusely embellished with various devices; but the effect is far from being as satisfactory as so much outlay of time, labour, and materials might lead one to expect. *Polonius'* admonition, "neat, not gaudy," has been disregarded

in its construction. The subjects of decoration are endless in variety, and stick about in all directions, being at once liable to accidental injury, and difficult to clean; and their bewildering effect is increased by the introduction upon them of various colours in gold, silver, copper, &c. The principal conceits in the recess beneath the slab are three little copper-faced boys playing upon various instruments of music in silver

and brass, and lying *perdu* amongst aquatic foliage of various kinds, including bullrushes. The same character of decoration is carried round the frame of the glass. In fine we must look upon this wonderful structure more as a specimen of what may be done, than what it would be desirable to do; and in that light it has certainly considerable claims upon the attention of the visitor.



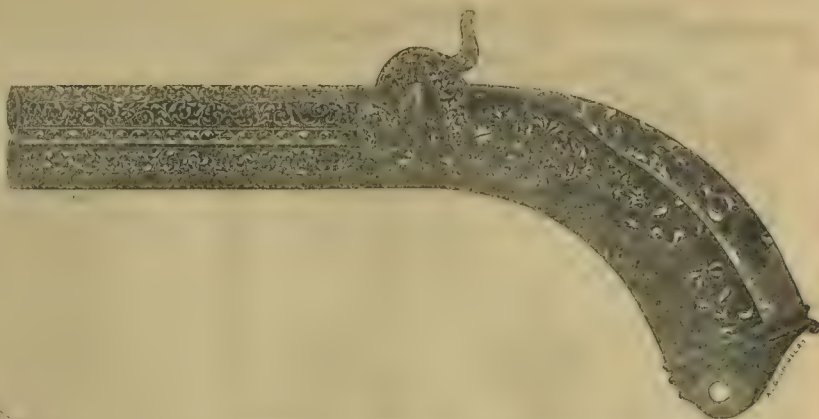
FURNITURE.—EAST INDIA COMPANY.



ISLAND TABLE AND ORNAMENTS OF TOP.—CALDECOTT, GREAT RUSSELL STREET.

FRENCH ORNAMENTED FIRE-ARMS.

The French gunmakers pay great attention to the decoration of small arms, as fancy pistols and so forth, which they really render very beautiful, almost inviting in appearance. MM. Mortier Lepage, Devisme, Claudin, Lefauchaux, and others who have especially distinguished themselves in this branch of ornamental manufacture, make each a very handsome display in the present Exhibition, their locality being on the north side of the Foreign Nave. In the present page we give several specimens. The pocket-pistol by Devisme is very elaborately ornamented with damascene work and incrustation in gold. The five-barreled pistol, by Lefauchaux, is more moderately ornamented. The pistol and appendages by Claudin are very richly chased and engraved in a mixed style; the barrel of the pistol being Gothic, and the lock and hammer combining, with the Gothic, decorations of the Louis Quatorze style. The powder-disk is especially beautiful, both as to



POCKET-PISTOL, WITH DAMASCENE WORK AND INCRUSTATION IN GOLD.—DEVISME.

COLT'S REVOLVER.

In this page we also give a diagram of the revolver, or repeating pistol, invented by Samuel Colt, of the United States, and which is so terribly efficient in its operations as to leave all former inventions of the kind far in the background. The report of the Board of Ordnance, U.S., is strongly in favour of its adoption in the army, particularly in frontier warfare, where it has already proved of most important service.



PROVING PISTOL, ON DEVISME'S PLAN, FOR TRYING THE FORCE OF POWDER.

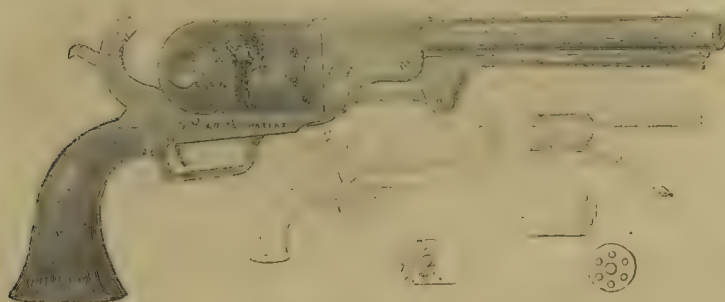
design and workmanship. The gun constructed for loading at the breech, by Lefauchaux, exhibits very neat workmanship. Claudin and others also have specimens of guns upon the same principle.

DEVISME'S PROVING PISTOL.

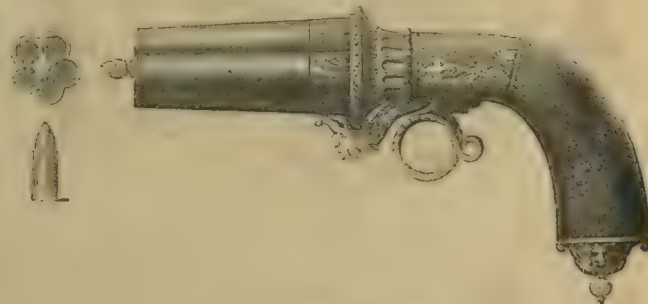
Devisme's proving pistol, for trying the strength of gunpowder, is constructed upon a very simple principle, and is said to answer the purpose with extreme accuracy. The charge is inserted in a small tube or barrel drilled in the stock, and which it fills. Against this the flat surface of a steel spring presses; and, upon the charge being fired, the extent of the divergence of the latter along the graduated scale indicates the degree of strength of the powder proved.



GUN TO BE LOADED AT THE BREECH, ON LEFAUCHAUX'S PLAN.



COLT'S REVOLVER.



FIVE-BARRELED PISTOL.—LEFAUCHAUX.



PISTOL AND APPENDAGES.—CLAUDIN.

VEGETAL SUBSTANCES.—ROOTS, GRAIN, PULSES, &c.

almost all the dormitories has the husk, and, perhaps, many of our country visitors have not before seen it in that state. In the Indian department, however, it is well represented. It is a native of the East Indies, and has been introduced into the creeping stem of the *Typha latifolia*, or large reed, which is said to yield a meal fit for food, and supplies a fibre which can be adapted for various manufacturing purposes. We really know nothing about it, and therefore do not recommend it till we hear further of its properties. Of various roots used for food, the *Yucca* is the most common, and is a very good and nutritious substance, and can be mixed with bread. The carrot is also a valuable tuber than the parsnip, and may be found in some of the preserved supplies of provisions. Turnips, so far as we know, are simply shown

From the above account, our readers cannot fail to observe that the material vegetable substances used for food have been almost entirely ignored; and yet, besides these, we shall hereafter have to describe numerous fruits and vegetable products which have also been neglected. The whole question of food is very largely represented, and it is much to be desired, that, when so many vegetable species have been collected by so many countries, at such great labour and cost, they should be more fully described, but that they should serve either as a nucleus for a museum, or as a basis for a collection that is highly important, and durable collection where Sir Walter Hooker has already collected together in the national gardens of Kew.

(Continued from page 605.)

RESPECTED FRIEND—

[illegible]

Well, I don't dislike the floor, Deacon, when the weather's gitting hot: first, because it prevents axydeas. A man may get excited with either indoors or his country, and tumble out occasionally, as I've seen a feller do at home, from one of our old four-posters, when I vow if it didn't seem as if he was coming down a waterfall; and next, because this sleeping on a level with four others was, after all, conformable to our great principle of equality. I men are to stand on the same footin', I don't see why they sint to sleep—why the principle aint as applicable to their backs as to their legs. And equality warnt' all the fact; I guess it caused fratricide, as you'll see from what ensued. As soon as I was under hatches, I thought I'd see my company—see who were the folks I'd got amongst; and as the candle wasn't put out, I was able to manage that by lookin' at one on 'em pretty straight, and at Coburn's sorter sideways, working my optics ather' awiled fashion, like the bow-guns of a pirate. Well, I vow if I didn't think they were a lot of bears who had gone to hospital. What with their huller yaller jaws, and their everlastin' hides of hair, it warnt' in natur' to expect speech from 'em, but just a snuffle and a grunt; and I can't say that in the first instance I felt altogether easy—they stared so eternal hard at me, and kept their jaws jammed up so fast. So, as a hail, they say, costs nothin' and often keeps two cruits from foul'n', I thought I'd just accost 'em, though, at the same time, as they were furriners, and strangers to our language, I seed I must be plain, and to 'em I said, "Now, I'm a little simple, easy, nat'ral taste of English. So says I, arise a cough or two, 'I reckon that we've got a most parlicker good accommodation—want a long way t'other side, I reckon, of being no ways convenient." Now that speech, you'll say, was plain enough, and as civil as a bar gal's; but whether they were dooberous or felt like what they looked, young bears that wanted roking, I guess they still held fast and only stared the harder. So I thought I'd try agin, and says I, "If I may be so bold, I s'pose you've come to London to see the Exhibition—I s'pose that—the Exhibition?"

Well, good Uncle Eliah, if that warnt' the shot, no matter! If that didn't be their jaws a bit, and clap a fresh hinge on their gradies, then I'm no judge of smith's work. You've seen a feller wuks by firen' Deacon's jerk'd up out of his sleep by a cannon or a thunderclap; well, I reckon this got ditted it. My last word was a peal to 'em! No sooner did they hear it, than they all jump'd up right an' end; all bolted up as sudden as a meat stick in a rat trap, or a dog with a muskeeter. "Exhibition!" they sang out, "Wee, wee—yase, yase." And the feller in the further bed that I found out was a German, why he begun to "Yau!" like a young donkey in good spirits. Well, all they wanted was a start, nothin' more than to be set agoing, like old Almer Cook's perpetual motion, that he was all his life inventin', and died just as 'twas finished. "Hallo!" says I, "hallo!" and was just about to follow, when what do you think it meant, Deacon? Why I sworn it 'twasnt' affection! If they didn't call me "brother," as I was a republican, and tell me they were such themselves, and more than that, all socialists or socialists which, of course, explained at once their uncommon social manners. Well, after this was over, and they'd wrung my fist half out of joint, back they went to bed agin, and started another race at talking, and about as quick again as tother one, setting up a roar that would have skered a western clearin'. When arter strainin' my ears an' lurch to see if I could catch su' hio, I guess I went to sleep, and dreamt I was in a waggon, going over old Niagara. Now I want to know, Deacon, if this adventur' hadn't a moral in it? If it didn't shew the good of bringin' divers folks together? All thro' the little accident of our sleeping on one floor, here were the natives of three countries made good friends for life; and even s'posin' we'd been enemies, I say the result would have been the same. Misfortuin' makes men brothers, and arter passin' the night we did, jam'd up agin a roof with scarcely room to stretch or breathe, I want to know if we shouldn't have riz, and felt we'd all had our revenge!

But now to go ahead. You lart from Uncle Enoch what was the noos I heard at Plymouth; the noos of the discovery that had just been made in London—Plymth' short of a grand conspiracy on the part of all the furriners, who owed a grudge to England, to burn down the mammoth city, and overturn the Government! If it warnt' me, may I be shot! A plan to take advantage of the occasion of the world's meetin' to open another exhibition, one of human spite and wickedness, and show the industrial energy of all the devils that are out of work. Not that it had come to a head; the mischief was still inside the egg, but it was within a day or two of hatching, when the young scorpions it was reckon'd would be ready to waddle out. So, of course, when this was told me, I didn't take to tooth-picks, didn't think of keeping off and rocking out the time till the explosion had taken place, and the sea-tar was over. I saw it consarned my character to be upon the spot, to help to put down the rumors, or at least show I warnt' engaged in it. So up I came, of course, and the first job upon my hands was to go out the followin' mornin', and make sure the noos was true; to take a survey of the hull city, without lettin' out my object, and whatever I saw suspicious, of course report it to the Government; and, as every one's aware of my strong observing faculty, a sorter forceps that I can poke into any hole or cranny, grip a fact and drag it out with it, I felt I was just the feller for this highly important dooty, and might possibly create a better feelin' twixt the countries. So, soon as I got breakfast, off I set upon this errand, to make a tour of the mammoth city, and see what there was about it that was both mighty and suspicious; and arter nine hours' s'eady walkin', I s'pose I'd a right to speak, had some giral sort of fancy, both of its spirit and its bulk. And what did I discover? In my day's hunt for conspiracy, what did I turn up? Why I rather think just this, that I'd got into a workshop, and about the grandest in the world. From one end of this everlastin' human wilderness to tother, from its north side to its south, in its streets, or docks, or houses, all I could clap my eyes on was one eternal heap of working; every feller doing eather, and doing it full pett. All were blin' up with the same restless, busy spirit. All had got an end, and all a motto, "Go ahead." Now I s'pose I needn't tell you that this widened my eyes a little. I thought that in point of industry we whipped the hull creation—but everything in quickness, unless an antelope or telegraph. But I guess it's a mistake, Deacon. These London folks can size us; for they don't only work in working, but they work on their amusements. If you see a chap on horseback, he'll take ten times as much exercise as the crittur does that's under him; or the ladies in their coaches, it's just the same with them, I guess they cannot be quiet, for s'posin' their tongues are resting, don't they work their eyes about most terrib.

Well, then, I s'pose you'll say there warnt' no conspiracy at all. Well, I vow if I saw a mesel, unless 'twas gals and boys, and a pair of ager in their fathers' pockets, or a wicker little widdergin a feller's liberty; or in a tavern I turn'd into, a sorter general conspiracy agin all kinds of trouble, among the most unconmmon merry varnints that ever jingled spoons together. And so, of course, you'll ask me—London being look'd at—how about what follow'd it? How about the next sight in the list of the world's wonders? The Warehouse of the World—that house that for a hull year I had thought and talk'd and dreamt about as if it had been my own existence—that I had publicly pronounced to be the first business of the day—that I had proclaimed as the ruling object, and grand focus of our spashy—but how of a sudden, and yet able to be big enough to have all the samples of the world, and yet able to have a shelve from the universal shoulder—that hull sale store-ysle, light, over the great fraternal storehouse—that grand hot-house where the plants are to be moral ones, and amaranths, and the heat to be that

of natur pouring straight down from the sky. How when I got up to it? Well, as to-day, Deacon, in the 30th, and to-morrow is the 1st; as it only wants twelve hours to the time the doors will open; as 'tis actually to-morrow that the Congress will begin, and the hull world will set to work shaking one another's hands; as the buildin' is all finished, and the goods are all arrived, and the flags are all up and waving, and the seats and centres are all fixed; as the hull city is in commotion, gitting ready for the morning, and about a million on 'em at least that won't go to bed at all; as there's nothin' d'ing right and left, but just one stir of preparation—the Prince gitting up his speech, and the Queen gitting up her answer; the commissioners brushing up

their manners, and the exhibitors their goods; the gals working at their dresses, and the sopers at their gus; and as, in addition to all this, I'm 'en amost used up, and caterwampused with my walk, and for all that must see to my rigging afore I go to bed—git my blue coat out of wrinkle, and my calf-skin booties stritch'd, and just air a big frill'd shirt, and sn't my Mexican pearl brooch, which, if it didn't come out of an oyster, is, at any rate, as big as one—I'm downright compell'd, you see, to tell you all by the next ship.

Your hopeful and affectionate,
PELAG E. WHEELER.
(To be continued.)

CROSSKILL'S ROOT-WASHER.

This is a very simple and convenient machine, in which the principle of the Archimedian screw, has been ingeniously applied. The roots are delivered into a hopper, and pass thence into an inclined cylinder, having two chambers, in the first of which they are confined and washed by turning the handle in one direction; when thoroughly cleaned, the motion is reversed, and they pass into the second chamber, which is constructed in the form of a spiral, along which they pass until they drop into a spout outside. It is well adapted for carrots, potatoes, turnips, and most other roots.

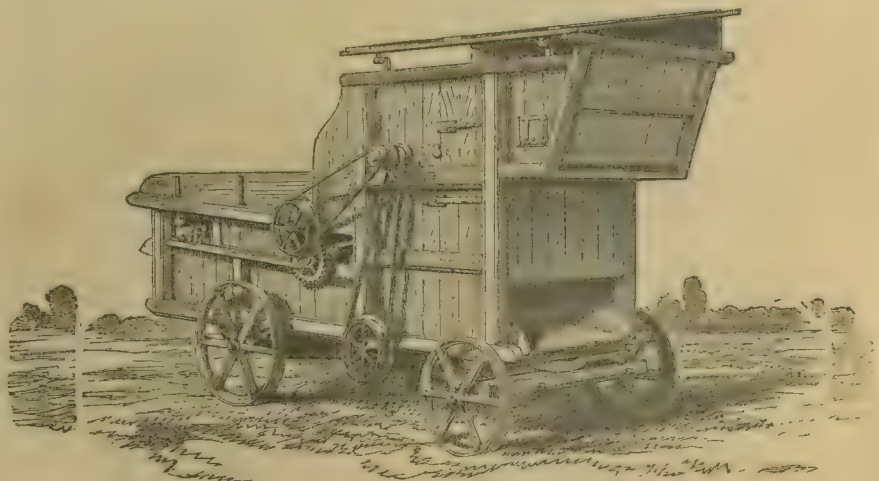
CLAYTON, SHUTTLEWORTH, AND CO.'S THRESHING-MACHINE.

This is an excellent specimen of the threshing-machine in its most improved form. The most recent improvement consists in the vibrating trough, which extends the whole length of the machine and straw-shaker, and has a reciprocating motion given to it by means of a crank. The great quantity of pulse, or colder, which drops through the bars of the straw-shaker, has long been considered very objectionable, inasmuch as it increases considerably the amount of labour in the barn, both at the time of threshing and also when going through the dressing-machine. By means of the vibrating trough, the whole, as it drops from the threshing-drum and straw-shaker, is caught, and passed over a riddle, under which the blast is directed, thereby effectually



CROSSKILL'S ROOT-WASHER.

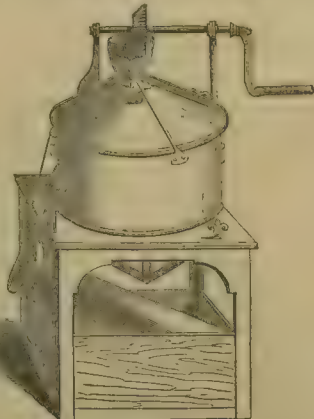
separating the corn, chaff, and pulse from each other, each being discharged into the place assigned for them; thus effecting a considerable saving in manual labour over the old method of threshing.



CLAYTON, SHUTTLEWORTH, AND CO.'S THRESHING-MACHINE.

DEANE, DRAY, AND DEANE'S DOMESTIC FLOUR-MILL.

This is an excellent little machine and does its work in a very superior manner, the flour being perfectly soft and fine as from a large mill. It also dresses and separates the flour, seconds, and bran at the same



DEANE, DRAY, AND DEANE'S DOMESTIC FLOUR-MILL.

time, and in such a manner as we should not have expected in so small a machine.

Messrs. Deane, Dray, and Deane seem to have succeeded in producing that which has long been a desideratum, namely, a good and effective hand corn-mill, for occupiers of small holdings and emigrants.

CROSSKILL'S UNIVERSAL MILL.

This machine is likely to be a great boon to agriculturists, as a variety of operations are effected by it that usually require a separate machine for each. As a grinding mill, its powers seem to be unlimited; flints, coprolites, bones, &c. being reduced to a fine powder with apparently as much ease as barley or wheat. It also splits beans, bruises oats, crushes linseed, &c. Its action consists in two plates running in the same direction, and at the same velocity, but not on the same centre; hence it is sometimes called the Eccentric Mill. We have engraved a section through the grinding plates, to illustrate more clearly the principle of its action.

THE SLAVE IN THE MARKET. BY R. MONTI.

Signor Monti's veiled subjects we have already discussed at some length in our fourth notice on Sculpture. One of these figures, which, we must observe, is meritorious in treatment in other respects than the veil, we now engrave. It is supposed to represent a Circassian slave



CROSSKILL'S UNIVERSAL MILL.

in the slave market at Constantinople, though these conditions are by no means all essential to its accurate description. Touching the veil trick itself, which has attracted so much notice, we may mention that it is by no means new, though, fortunately, we have had few previous examples of it. In the church of Santa Maria della Pietà, at Naples, are two remarkable instances of singular perversion of art. They are portrait statues, erected by the Prince Raimondo di Tancredi to his father and mother, about the middle of the last century. The female figure was wrought by the Venetian sculptor Corradini, representing the Princess under the emblem of Modesty. "It acquired great renown at the time," says Duchesne, in his notice of it in the "Musée de Peinture et de Sculpture," "from the singularity of seeing a face covered with a veil, light enough to show full shape of the body, which, unfortunately, is not handsome." Combined with this "singularity," now no longer



VEILED SLAVE IN A MARKET.—(MILANESE SCULPTURE.)

singular, we remark concurrently in this work bad taste in the arrangement of the drapery, and other vices of detail, as the introduction of a garland lying across and breaking the outline of the figure. The other example referred to, which is also engraved and described in the "Musée de Peinture et de Sculpture," is a still more extravagant feat of art. It is from the chisel of Francesco Girolamo, a Genoese sculptor, and is called the "Sinsful man undeceived." "It represents," says the writer previously quoted, "the father of Prince Ramondo, partly enveloped in a net, of which he is seeking to rid himself. The artist alludes to the situation of that prince, who in the course of his life often let himself be carried away by vice; but who, at a later period, and enlightened by his genius (the good genius is represented as an angel in smaller dimensions), reverted from his errors. The net is in marble, as also the statue and all the accessories, which must have produced great difficulties in the execution, as it adheres but in a very few parts. The appearance of this coarse envelope contrasts with the high finish of the flesh parts. This difficulty overcome is the principal, and, it might almost be said, the only merit of the group."

PLASTER GROUP—PAOLO AND FRANCESCA. BY A. MUNRO.

Mr. Munro, in this little group, seeks to realise the incident described by Dante, or rather by his heroine, Francesca, for she is supposed to relate her own sad story to him, in the following passage, as translated by Carey:—

One day,
For our delight, we read of Lancelot,
How him love thrall'd. Alone we were, and no
Suspicion near us. Oftimes by the reading
Our eyes were drawn together, and the hue
Fled from our alter'd cheek. But at one point
Alone we fell. When of that smile we read,
The wished smile, so rapturously kiss'd
By one so deep in love, then he, who ne'er
From me shall separate, at once my lips
All trembling kiss'd. The book and writer both
Were love's purveyors. In its leaves that day
We read no more.

We need hardly say a word to point out the difficulties which too obviously surround the treatment of such a subject in sculpture; at least, if it be attempted to represent *all* that the poet conceived of it. One point referred to in the passage, "the hue fled from our alter'd cheek," it is impossible to render through this medium, because it is a material *always* colourless; and even to convey the idea of strong emotion as conveyed through



"UNA AND THE LION."—BY JOHN BELL.

the eyes, is a thing which has never been attempted in the plastic art. Nevertheless, Mr. Munro, who is a young artist of very considerable promise, has produced a very pretty and graceful composition, though at the same time one which, costume, accessories, and all considered, would have been better adapted for a painting than a work in plaster. As regards expression, he has certainly accomplished a great deal—much more than we would have been prepared to expect: the face of Paolo is earnest and impassioned in the extreme; it tells of a devouring passion long pent up, now first revealing itself; that of Francesca confesses a reciprocity of feeling, but with a modest hesitating reserve, which is admirably true to the more delicate poetry of the situation.

UNA AND THE LION. BY JOHN BELL.

We give an Engraving of Mr. Bell's plaster group of "Una and the Lion," upon which we made some observations in our second notice upon Sculpture. It may be proper to add that the group is a copy, with additions and improvements, of one already favourably known to the collectors and admirers of porcelain statuettes.

CARVED FRAME. BARBETTI.

This is a very beautiful specimen of the wood carving of Signor Barbetti, of Florence. The birds, in high relief, are finished with extreme delicacy.

PSYCHE. BY P. FRECCIA.

This very pretty marble statue stands in the Tuscan room, where it is deservedly admired for its gracefulness of conception and delicacy of finish. We shall reserve further observations upon it at present, however, as it will be included in a general notice of the works of sculpture in the Italian department, in a future Number.



CARVED PICTURE-FRAME.—TUSCANY.



PLASTER GROUP—"PAOLO AND FRANCESCA."—A. MUNRO.



"PSYCHE."—FROM FLORENCE.

THE ILLUSTRATED LONDON NEWS

SECOND SUPPLEMENT.

VOL. XIX.]

SATURDAY, JULY 5, 1851.

[GRATIS.]

THE GREAT EXHIBITION.

ON DECORATIVE ART.

THE ornamentation of works of utility is a subject which, after very long and almost total neglect, is beginning to engage the attention as well of producers as of those who employ them, and which it may be interesting to consider in reference to the examples presented in the Great National Exposition. The subject is a very wide and a very inviting one: we shall endeavour, however, to restrict our observations within the limits of the practical bearings of it. Yet, in doing so, we must not omit to point out what we conceive to be the legitimate province over which such an inquiry might extend, as it involves a necessary relationship, in an æsthetic point of view, of several branches of art hitherto having little connexion with one another, but which, nevertheless, have strictly common interests, in this at least—that for success they must conform themselves to the prevailing taste or prejudices of the age. The rule is imperative—there is no escape from it; and though fine art may pretend to turn its back upon useful art, it is difficult to say where the province of the one begins and that of the other ends; whilst it is positively certain that where fine art has “no connexion” with useful art, like other fine people amongst a non-productive community, its resources become sapped, and it dwindles to decay. What is architecture but building upon principles of taste in which the eye is consulted? the same “taste” which prescribes the form of a hat and the fashion of a sleeve? The chain which connects all the handicrafts employed in the various intermediate matters of social requirement may be a long one, at some points a slight one, but still it is an unbroken one, and will make itself felt sooner or later. As between architecture and internal decoration and furniture the links are very palpable in the recent adoption of mediæval models; where the wood carver and the upholsterer very quickly followed upon the heels of the builder, and where the artificers in silver, and brass, and potter’s clay, and now the book-printer and bookbinder (to say nothing of the writer of books) and the embroiderer of silks and woollens, and the whole host of those who minister to the need

and fancy of others, are with very great precision following upon the footsteps of one another, or, rather, walking hand in hand over the same path. How long it may be before the tailor and hatter join in the march, and turn us out into *ye streets off Bonldie*; “a fine old English gentleman” after the fashion of his forefathers of the thirteenth century, we do not pretend to guess.

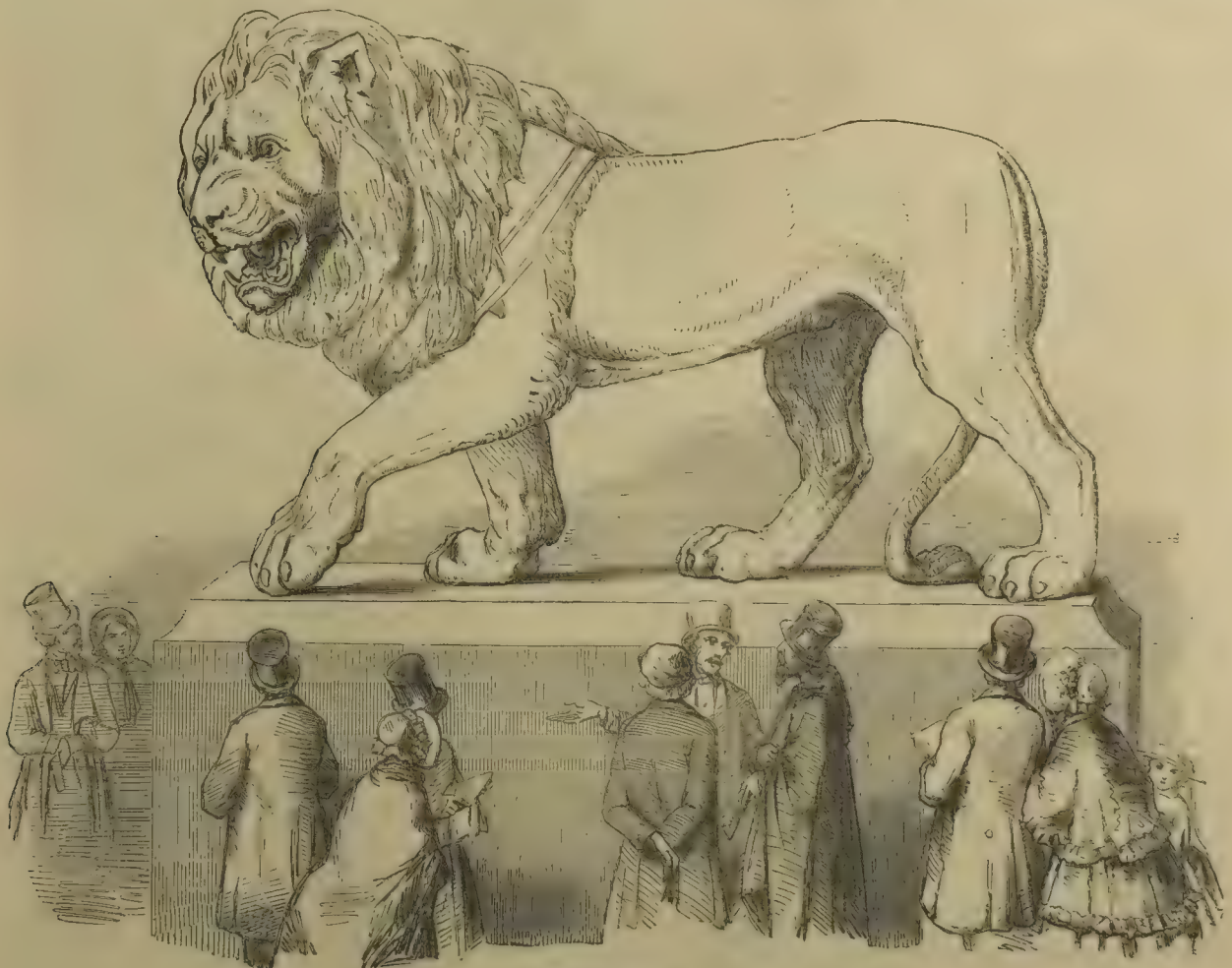
There should be a nice and critical scrutiny of the principles of art evinced in every class of works from the highest to the lowest, if we would hope to educate or guide the public taste in these matters. There is no doing things by halves, and fortunately so, as we think; for the same course of culture which brings the judgment to correct appreciation of excellence and beauty in the structure of a palace, will apply equally to the fashion of a dress, and the ornamentation of the material of which it is composed. The same principles of harmony, the same rules of propriety, the same submission to the dictates of common sense and common fitness which regulate the one, regulate the other also. And surely not without justice, surely not ignobly, is art, high art, employed, if, whilst it builds and decorates temples for man’s resort, it decorates man also—if, whilst it paints the portraits of our wives and daughters in the most becoming costume, it gives some hint how we may have the originals as advantageously “treated” in that respect when at home.

This brings us at once to a consideration of what has been done towards this art-culture—what has been done towards the accomplishment of this only profitable “Art-Union”—we mean the association of decorative art with art purely useful. We should observe that (speaking of modern times) it is only very recently that the idea of such an association entered into the minds of men: fine art always before that sticking to its picture-frame; useful art to the stocking-frame and the loom. And now that they have consented, as it were, to a conference, with a view to establishing a commercial league, it is not without considerable misgivings, and reserve, and jealousy, resulting from an imperfect understanding of their relative right positions and their common interests, that they go on, or stand still over the matter. The great difficulty at present, as it appears to us, required to be settled, is, where art ends, and where handicraft begins—the middle ground upon which head and hand may work together. In a cabinet picture for the annual exhibition, and in the manufacture of a coarse

calico, there is no room for doubt upon this point; it is where the picture and the calico require to be combined. So, in the building of your house, the R.A. is your man to superintend, and take his percentage of commission; but when it comes to the carpeting and furnishing, upon which, as much as upon the actual disposition of the stone-work, the comforts and “effect” of your new mansion depends, he leaves you to the upholsterer and the carpet manufacturer. He will not take commission out of wood-work and woollens. Yet it was not always so—it is not so to the full extent now abroad; and when we all know our own interests better, it will not be so with us. The advantages of a co-operative association of art and handicraft will neither be one-sided nor short-lived. Art will educate and reclaim a larger field in the public mind; will, so to say, create a taste to which it will afterwards profitably minister;—handicraft will, by means of improved and novel designs thus placed at its disposal, be enabled to compete with the markets of the world, from a bold and independent ground, which it does not occupy at present;—finally, the artificers employed in this joint production will have constant opportunities of developing their inventive talents, and of advancing their position beyond that of mere live mechanism; and England, instead of being for ever a mere nation of shopkeepers, may become the art-producer of the world, and the founder of a new school worthy of bearing its name.

For want of this application of inventive and original taste to handicraft, the latter, left unaided and in the dark, has had, through a series of generations, to resort to mere copying of favourite models of former periods—models more or less meritorious in themselves, but whose merit consisted mainly in their originality, and their general conformableness to the prevailing tastes, and the prevailing fashions in other matters, of the time in which they were produced. Thus have we constant boastings of pure *cinque cento*, pure *Renaissance*, pure Elizabethan, pure Louis Quatorze, and most abundantly of all pure *rococo*, as though these were passports to honour and favour, instead of simple confessions of bankruptcy in idea, and almost hopeless extinction of inventive faculty.

It is now fifteen years since not only the public, but the Government, began to awake to a full appreciation of the miserable state of darkness in which the country lay in respect to all that related to the ornamental



COLOSSAL BAVARIAN LION

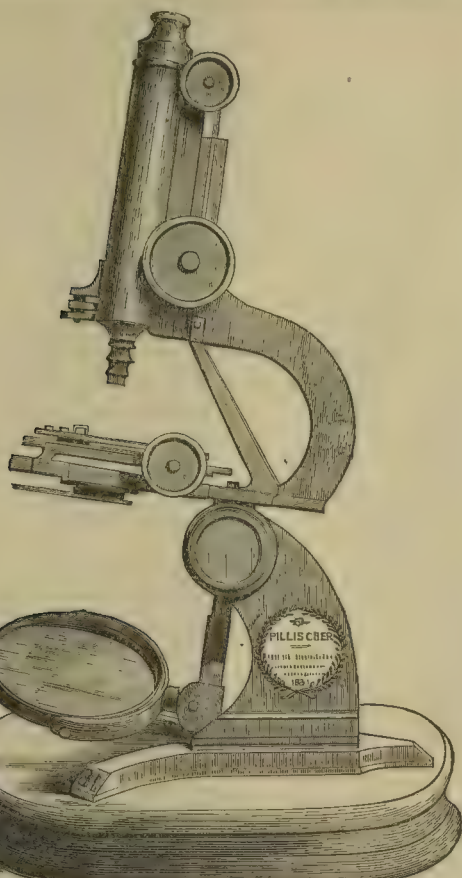
COLOSSAL LION.—MÜLLER.

THE monster of the forest stands 15 feet from the head to the tail, and 9 feet high. Having said which, there remains little more to be added, save that it stands in the Eastern Nave, courting the gaze of all who are

curious in lion-flesh. For the animal itself, with many thanks for this contribution—all the way from Munich—we must say that we have many better lions in this country; the noble beast at the top of Northumberland House, for instance, whose erect bearing might be studied with advantage by the Bavarian sculptor. There is, or used to be, also, a

brass lion at the corner of Berners-street and Oxford-street, which we consider superior in many points to M. Müller's. Upon the whole, despite the acknowledged taste of the late King, and the attention and money bestowed by him for the encouragement of art, Bavaria does not figure very favourably in this respect in the Great Exhibition of 1851.

GLASS AT THE EXHIBITION.—In Class 4 of the Great Exhibition, under the classification of "Vegetable and Animal Substances," Mr. James Vickers, proprietor of the Glasgow Soap and Tallow Works, Little Britain, makes a very interesting display of tins of soap, which is of various colors, and of different shades of color, and also to illustrate the neatness with which the soap can be worked. Several of the specimens are arranged in baskets, flowers, &c., and are of various colors. The soap is composed entirely of rolled and cut kindling. The inscription draws attention to the various colors, and states the whole of the samples to be entirely free from any coloring or the ingenious adulteration so extensively practised lately for the purpose of obtaining an artificial color. The Glasgow News of November 9th, 1850. The sophistication is further alluded to by the following notice:—
"We have some specimens of packet tins, designed to restore confidence in soap, and are offering an early guarantee for the purity of so delicate



PILLISCHER'S MICROSCOPE.

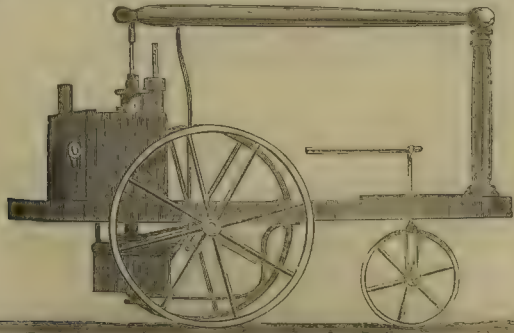
PILLISCHER'S MICROSCOPE.

Mr. Pillischer is one among the thousands of ingenious workmen who have lent their aid in accomplishing the great work of furnishing the Industrial Palace; and it would be well that all such men should be known to the mass of visitors who can admire the exquisite objects exposed in most departments, but who seldom stop to enquire who made them.

Mr. Pillischer, who is one of the best makers of microscopes in London, exhibits one of large dimensions, of exquisite workmanship, in order to show what can be done in his way. This beautiful instrument is the largest which appears in the Building, and is of the most approved construction, being in every respect properly placed as regards its centre of gravity. The stage is much simplified in comparison with those ordinarily used, and is worked by means of a rack and pinion, and Archimedean screw, the two pitches corresponding accurately with each other, giving rise of an inch motion for each revolution. The fine adjustment works with a lever and screw, having 50 threads to the inch. The body slides on a groove, and can be adjusted by rack and pinion to the greatest nicety. As in the best microscopes, a draw-tube is fixed on the top of the body, to which the maker has added a very useful contrivance in the shape of a register, attached to one of the milled heads, whereby the nicest adjustment may be obtained, so that the examiner is enabled to look at the object under inspection while he is increasing the power to any required degree. He has also added an erecting eye-piece to the body, which is also another advantage.

Double Achromatic Opera-glass.—Though called an opera-glass, this instrument is sufficiently powerful (says Mr. Pillischer, the maker) to view objects at from five to seven miles distant. The body, of gold, is engraved in the Elizabethan style, and the whole is contrived so as to suit faces of various sizes. Frequenters of the opera are so much in the habit of purchasing French glasses, that they will scarcely believe that this elegant opera-glass is the work of a German, long resident in England.

Pillischer's Elliptograph.—Several instruments for the purpose of describing ellipses on paper have at different times been invented; that,



WATT'S FIRST DESIGN FOR A LOCOMOTIVE.

however, which is illustrated by the two drawings, viz. a plan and elevation, appears to be not only simple in construction, but very suitable for its intended purpose. A is the standard, which is fixed, when required to be used, by two points through the paper into the drawing-board; B, the ratchet wheel fixed on the standard A; C, the handle which revolves in the standard A; D, the shifting bar which moves with the handle C, by which the diameters of the ellipses to be described are adjusted; E, the drawing pen or pencil; F, the rack, taking its motion from the ratchet-wheel B, and allowing the pen or pencil E to move with it; G is a bar attached to the pen or pencil-holder F, for setting the pen according to the figure required to be described. The three inventions described as above are placed with the Philosophical Instruments in the Middle Gallery (North), and towards the west end of the gallery.

JAMES WATT AND CO'S LARGE MARINE ENGINES.

It is, indeed, gratifying to find the name of the great Watt so worthily represented by his successors, Messrs. James Watt and Co., who have contributed a pair of marine engines, of exquisite manufacture, to the mechanical section of the Great Exhibition. These en-

gines are designed with a view to driving the screw propeller by direct action, without the intervention of gearing—certainly an immense advantage. Their collective power is equal to that of 700 horses. The general arrangement consists of four horizontal cylinders, each of 52 inches diameter, and having a stroke of 3 feet. The condensers are placed between the cylinders, with two double-acting inclined air-pumps. These engines are calculated for a propeller of 16 feet in diameter, making 65 revolutions per minute. Besides the simplicity and compactness which characterise these engines, they have the great and important advantage of occupying but little space; in addition to which, on account of their extreme height from the foundation being but small, they can be entirely protected from the effects of shot by being placed far below the level of the water-line.

THE LOCOMOTIVE ENGINE OF 1785.

Even more interesting to a majority of the visitors to the Great Exhibition than the beautiful marine engines of James Watt and Co., already described, are two models exhibited by the same firm, and side by side with the great engines: the former represents the locomotive engine of 1785; and the latter an oscillating engine, which was patented by the great Watt in 1784. Both models were made by Mr. William Murdoch, the friend and assistant of the great improver of the steam-engine, in 1785. The locomotive engine on three wheels, with its cylinder and crank action, forms a wonderful contrast to the Cramp-ton leviathan engines of 1851, and which are exhibited in the railway department, within a few yards of their extraordinary ancestor. A locomotive engine of the form exhibited by Messrs. Watt and Co. was made to run on the common roads in Cornwall in 1785 and 1786.

WATT'S OSCILLATING ENGINE.

The second model is of an oscillating engine, which is exceedingly interesting at the present time, owing to the great number of machines of the same class which have been sent to the Great Exhibition.

To the unlearned in these matters, it may be as well to say that an oscillating steam-engine is one in which the cylinder vibrates on an axis, either at top or bottom if placed in a vertical plane, or at one end if placed horizontally, so as to accommodate the rectilinear action of the piston rod to the circular motion of the crank. In this model the cylinder is cased with wood, whereas in our days the jacket is most usually made of felt.

REMOND'S MACHINE FOR MAKING ENVELOPES BY STEAM POWER.

The truly ingenious machine of M. Rémond, of Birmingham, exhibited by Messrs. Waterlow and Sons, and placed near to the north-east angle of the section devoted to machinery in London, and very near to Appleby's vertical printing machinery, by which the *Illustrated London News* is printed in the Building, differs essentially from the envelope machine exhibited by Messrs. De la Rue in the middle aisle. In Rémond's simple contrivance atmospheric pressure is employed for the purpose of raising singly each sheet of paper, and placing it on the top of the folding apparatus; and, again, in giving the necessary inclination to the flaps of the envelopes previously to their being folded down by the action of the plunger. In order to render the process easy, and shape are placed in readiness on the feeding table of the machine, which, by a very simple operation is started by the girl in attendance at pleasure. The top sheet is raised from the rest by means of a contrivance called a "finger," the underside of which is perforated, and a partial vacuum being formed, each sheet is sucked up against its under surface, and transferred to the folding apparatus, the reaching which, the exhaustion being no longer maintained, the sheet drops into its place. The folding apparatus consists of an open box or frame, the size of the required envelope, over which is fixed a creaser or plunger, fitting the inside of the frame. The blank piece of paper having been placed on the top of the box by the feeding finger previously described, the plunger descends just within the box, and the flaps of the envelope are thus bent to a right angle. The bottom of the creaser or plunger is perforated, so that the steam may rise, and the sheet drops into its place. The folding apparatus consists of an open box or frame, the size of the required envelope, over which is fixed a creaser or plunger, fitting the inside of the frame. The blank piece of paper having been placed on the top of the box by the feeding finger previously described, the plunger descends just within the box, and the flaps of the envelope are thus bent to a right angle. The bottom of the creaser or plunger is perforated, so that the steam may rise, and the sheet drops into its place. The folding apparatus consists of an open box or frame, the size of the required envelope, over which is fixed a creaser or plunger, fitting the inside of the frame. The blank piece of paper having been placed on the top of the box by the feeding finger previously described, the plunger descends just within the box, and the flaps of the envelope are thus bent to a right angle. The bottom of the creaser or plunger is perforated, so that the steam may rise, and the sheet drops into its place.

At this point, the second application of the atmospheric action comes into play, for the purpose of giving the flaps of the envelope a preliminary inclination inwards, with a view to its being ready for receiving the flat folding pressure of the return stroke of the plunger: to this end, the four sides of the folding-box are perforated, so as to allow streams of air to be forced against the outside of the flaps of the envelopes, in order that, on the second descent of the plunger, every flap may be folded down at once—the interior and under surface of the plunger being suitably formed to cause the flaps to succeed each other in their proper order. In addition to this, certain contrivances are adopted for embossing the outer flap of the envelope with any device required, and also for gumming the lowest flap, as a fastening for the completed envelope. In order to compensate for the continual decrease in the height of the pile of blank papers, and to provide for the upper one always coming in close contact with the lifting finger when the platform rises, the addition of a spring has

been found to be amply effective.

By this machine not fewer than 40 envelopes are produced in a minute, which gives as many as 24,000 per day, gummed, embossed, and entirely completed for use; if needed, the velocity might be increased. By the ordinary modes of production, the folding, gumming, and embossing, are all separate processes; and as at each of these operations every single envelope must be separately handled, our readers will have a tolerable notion of the economy gained by the use of Messrs. Waterlow's machine. The isolation of the different stages of manufacture consequent upon the employment of manual labour adds immensely to the cost of production, the loss mainly arising from the mere removals from one process to another. In embossing by hand, a boy may get perhaps 100 through 8000 or 9000 per day, and then there must be an assistant to turn down the flap on which the device has been placed and arrange the envelopes in separate parcels.

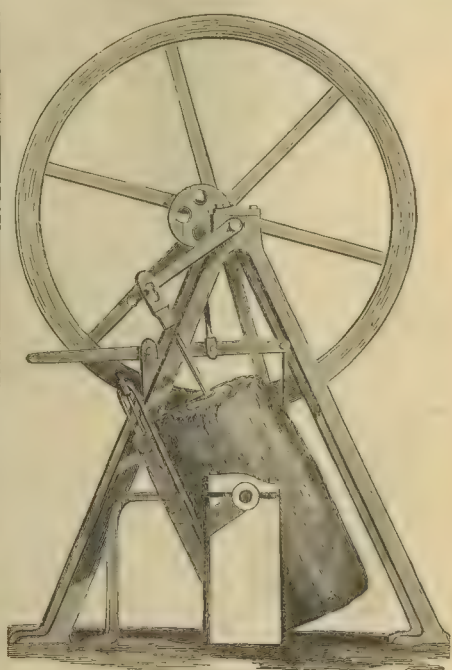
It has been estimated that in the year 1843 about 330,000,000 of letters were posted in Great Britain only; and, calculating from ascertained data, we are probably not exceeding the estimate by computing the annual number at the present time at 500,000,000. But this is

only one branch of the letter and parcel system; for, in addition to the distant transmission which must pass through the Post-office, the bulk of invitation cards, private notes, invoices, and accounts now involve the use of envelopes, and these do not of necessity pass through the Post-office.

Previous to the introduction of the penny postage system, envelopes were almost unheard of; for, owing to the peculiar system regulating the postage charges, all letters so enclosed were subject to a double rate as a double letter. The alteration in this respect, however, gave a powerful impulse to this mode of inclosure; and, in later years, its adoption has become almost universal.

FALLS OF NIAGARA.—MODEL EXHIBITED BY MR. CATLIN.

Among the various models which are to be found in several parts of the Great Exhibition, there is one in the American division of the eastern part of the Nave which may well attract the attention of the (at present) comparatively few visitors who are to be found in the large space allotted to the United States contributions. That one was been transferred by Mr. Catlin, from his collection of American-Indian productions, and placed on a large pedestal, in a conspicuous part of the Nave. The model, faithfully representing the "Horse-shoe" and American Falls (the former descending 150 feet, and the latter 163 feet), the various mills, hotels, residences, roads, and Goat Island, extending to 75 acres, embraces an extent of country equal to nearly a square mile; and being constructed to a scale of 50 feet to an inch, every object is very distinctly shown. The amount of water descending over the two falls is said to be equal to 1,715,000 tons per minute, and which is chiefly derived from the drainage of Lake Superior, Lake of the Woods, Lake Michigan, Lake Huron, Lake St. Clair, and Lake Erie.



WATT'S FIRST DESIGN FOR AN OSCILLATING ENGINE.

PHILOSOPHICAL INSTRUMENTS.

The telegraphs first attract our attention, and include almost every instrument, from that of Alexander, of Edinburgh, who exhibited his multi-wire electric telegraph at the Adelaide Gallery in its palmy days, to Dering's novel telegraph, said to be adopted by the Electric Telegraph Company, who, at the eleventh hour, crowded many of their beautiful instruments and contrivances into a space far too small for the exhibition of such a series of telegraphic apparatus, but have now removed the whole series into a large and convenient office, on the west side of the principal entrance to the "Crystal Palace," where visitors may see the different telegraphs practically at work, as the wires are in connexion with all the main lines of telegraph in Great Britain. There are also several telegraph stations in different parts of the "Industrial Palace," at which small boys may be seen working Cooke's Needle Telegraph, and who are authorised to send messages, and to Dering's novel telegraph, said to be adopted by the Electric Telegraph Company, who, at the eleventh hour, crowded many of their beautiful instruments and contrivances into a space far too small for the exhibition of such a series of telegraphic apparatus, but have now removed the whole series into a large and convenient office, on the west side of the principal entrance to the "Crystal Palace," where visitors may see the different telegraphs practically at work, as the wires are in connexion with all the main lines of telegraph in Great Britain. There are also several telegraph stations in different parts of the "Industrial Palace," at which small boys may be seen working Cooke's Needle Telegraph, and who are authorised to send messages, and to Dering's novel telegraph, said to be adopted by the Electric Telegraph Company, who, at the eleventh hour, crowded many of their beautiful instruments and contrivances into a space far too small for the exhibition of such a series of telegraphic apparatus, but have now removed the whole series into a large and convenient office, on the west side of the principal entrance to the "Crystal Palace," where visitors may see the different telegraphs practically at work, as the wires are in connexion with all the main lines of telegraph in Great Britain.

Next in order we may mention the Messrs. Highton's instruments, which are exhibited by the British Electric Telegraph Company—a formidable rival to the old company. All Mr. Highton's improvements in telegraphic apparatus are here fully represented. It is quite impossible, in this introduction, to do more than allude to the various beautiful telegraphs which render this compartment of the Exhibition one of the most interesting and important of any in the Building. We find, however, the instruments of C. V. Walker, the superintendent of the South-Eastern Telegraph; Henley's splendid instruments, and his immense permanent magnet; Bakewell's important writing telegraph; the American printing telegraph, exhibited by the Messrs. Brett, and Mr. A. Brett's instrument in a glass case; and, lastly, Whishaw's one-wire index telegraph, a model of his hydraulic telegraph, which was exhibited in the same line as Alexander's multi-wire electric telegraph, at the Adelaide Gallery. Mechanical and acoustic telegraphs of the same gentleman also form conspicuous objects in this division; and, above all, his telephones and telecouphons, the use of which have now been tested by the British public for the past three years.

Close to the telegraphs we find Messrs. Knight and Sons, and Messrs. Horne, Thornthwaite, and Wood, as the principal exhibitors—the former showing a beautiful air-pump and a complete portable laboratory, and the latter displaying a galvanic battery on Smeat's principle, an electro-galvanic machine for administering medical galvanism, two splendid electrolytic busts, and Rutter's electro-magnetic fire and thief detector, not to omit the most complete dissolving view apparatus which we have yet met with. We are glad to find our old friend Varley, together with his clever son, exhibiting their various improvements in microscopes, double-action air-pump, and reversing camera.

To the east of the Philosophical Instruments are an elevated platform or false floor is erected, for the exhibition of the pianos and other musical instruments of the principal makers in the kingdom, including the pianos of Collard, Erard, Wornum, and Mott, Robson's enharmonic, with corrections for alterations in temperature; Houldich's organ of three stops, equivalent to one of six stops of the ordinary construction; Dawson's autophen, which enables the unlearned in musical manipulation to play the most difficult tunes of the best masters; a fine array of Kable's wind instruments; and last, though not least, a fine harp which is located by itself in the western gallery, the great and surprising organ of Willis, which has occupied months in its erection. The weight of this instrument is calculated at thirty tons, and the number of pipes is somewhere about 5000. Besides this gigantic instrument, Gray and Davison exhibit in the east gallery a fine organ, which added so much to the musical effects, under the direction of Sir George Smart, on the day of inauguration.



"SUSANNA."—BY A. GALLI.

SUSANNA.—BY A. GALLI.

SIGNOR GALLI is a Milanese sculptor, and he has three statues in marble in the present Exhibition: one a "Jephtha's Daughter," of which spoke favourably in our notice of the works of sculpture in the Austrian Room; another, entitled "A youth on the sea-shore;" and the third, "Susanna at the Bath," which we have engraved. The attitude and expression are well conceived, and aptly illustrate the situation of one surprised at a bath; and the general treatment is satisfactory, though the hair might have been improved, had the softness and flexibility of nature been followed, and the drapery, what little there is of it, by being lighter in material, and freer in disposition.

SKETCHES IN CEYLON.

ELEPHANT KRAAL.

ONE of the most remarkable and exciting scenes in the island of Ceylon

to the European, is the capturing of wild elephants. The following is written by Mr. Nicholl, the artist, who made a number of sketches on the spot, at the Kraal, which took place in August, 1847, two of which appear in our present Number:—

(To the Editor of the ILLUSTRATED LONDON NEWS.)

Sir,—I left Colombo on the 28th July, 1847, by the Kandy mail, to proceed as far as Ambepussé. After crossing the bridge of boats, over the Kalang Ganga, the scenery assumed a beautiful sylvan character: the road runs for a considerable distance along the opposite bank of the river, through a thick grove of suria and cocco-nut trees, native gardens on either side, containing mango, pomegranate, plantain, custard-apple, clove, bread fruit, citron, and lime-trees, which throw a delightful shade across the road, at all times of the day, so dense is the leaviness; while in the more open parts of the country, the areca-nut tree raises its graceful stems, with clusters of nuts, its deep green leaf, which resembles that of the talipot, spreading against the sunny sky. The pepper, with its red and green berries, and other creepers, with the

brightest crimson, purple, blue, and yellow convolvulus-formed flowers, twine around the stems and amongst the dense foliage. Nothing can exceed the variety and beauty of these wildings of nature, or the wonderful vegetation presented to the eye in Ceylon at this season of the year. Masses of foliage cover the face of the country, bespangled with blossoms and fruit. The rest-house of Ambepussé is situated in a secluded valley, surrounded by lofty wooded mountains, and is midway between Colombo and Kandy; but the route now taken was Kornegalle, which lies in a different direction, along the banks of the Maya Oya, a clear rapid river. Kornegalle is situated at the foot of a high rocky mountain, called Aetepala, or the Elephant Mountain. The last 22 miles of the road was travelled in a bullock beandy, which is a narrow cart, the sides and top covered with plaited cocco-nut leaves, called cajan, a protection from the burning sun. This part of the journey was tedious and tiresome, having been twelve hours and a half in searching the resting-house. The Kraal was close to the Kimboolwona Oya, or Alligator River, 18 miles distant, where we proceeded on horseback along a bridge path. Elephant Rock was seen on the left, clothed nearly to the summit with forest trees; on the right were now and again seen, in the far distance, hills of various forms. Here we entered a dense forest, immense bare roots of aged trees had crept over the narrow path, covered with creeping plants, having great sharp, poisonous thorns. In a few miles we emerged into the open country; then again entered the forest, where not a ray of the sun could penetrate. The Kimboolwona Oya is forty yards wide, and its bed is at this season as dry as the desert. Groups of figures were seen bivouacking in all directions, under the shade of enormous trees, in many a variety of Oriental costume; others, in more exposed situations, were sitting under little sheds of talipot leaves, cooking their rice in chotties on a wood fire. The trees were festooned with the finest creeping plants the eye ever beheld, covering the entire tree like a net; jungle-ropes coiled around their branches, extending from tree to tree, some resting on the ground, while the others stretched over a branch some 70 feet overhead. In all directions around lay the skulls of other skeleton remains of the forest lord, scattered and bleached in the jungle, to tell the result of former kraals. Two miles up the river, passing a deep pool, which they say contains many alligators, you come to the ruins of a bridge, which is said to have been erected before the birth of Christ. All along the banks of the river, huge overhanging iron-wood trees were burning and smouldering away, having been set fire to in the drive, to prevent the elephants from straying up the river. Three miles down the river is another pool, where the hunters bathe the elephants, a group of which were seen cooling themselves under the shady trees, masses of grey rock rising on either side; in mid-distance tents, talipot bazaars, and groups of figures dressed in many a variety of colour; while far, far away, hundreds of human beings appeared like specks on the sunny sand of this wonderful spot, then inhabited by thousands—in a day or two the silent and secure retreat of the animals, the sweet notes, amid where song-birds with beautiful plumage sing their notes, amid the unequalled blooming vegetation of this lovely land. The Kraal was an enclosed space of about three acres, in the Nelligelle Mookleene forest, and is made of the stems of strong trees fixed firmly in the ground, with transverse beams, and powerful supporters tied together with stripes of bamboo, cane placed two feet apart, so as to allow the mahouts, or elephant hunters, to pass out and into the enclosure. Several thousand men are employed in the drive for weeks, in the forest; fires are lighted during the night, some distance apart, forming a circle of upwards of twenty miles. The fires are placed on stands of slight construction, a small quantity of earth placed on the top, and covered over with talipot leaves, to protect them from rain; these stands are moved nearer each other, each day, as the circle narrows. Elephants have a great dread of fire: the drivers shout, beat the tom-tom (a kind of drum), and fire guns; they are thus driven forward to a confined space, little more than one mile wide, which is the entrance to the enclosure, narrowing until it terminates with the gate leading into the Kraal. Four or six tame elephants are allowed to stray about the entrance; two of the first class were called Cereberry and Wira. On the approach of the wild animals, they seem to caress them and join the herd, actually leading them into the snare. Thus, the tame elephant becomes the seducer of her brethren of the forest, and seems to delight in their capture as much as man.

We waited patiently for the entrance of the elephants into the Kraal, from one in the afternoon till half-past nine at night. It was thought that some rascality was at work to cause disappointment; when all at once the guns went bang, bang, and the voices of the drivers became louder. As the elephants approached, a shout was given by the people on the stand, but too soon, as it frightened them back, and it was thought they had escaped. The repeated firing of guns was heard once more: the noise increased, drivers shouting, tom-toms beating; then a sudden rush; when, in an instant, as if by magic, around the enclosure was one brilliant glare of light. Blue-lights, torches, and fires shed a dazzling blaze on the scene, as the maddened herd crushed and dashed through the Kraal, spreading destruction around. Huge trees were crushed to splinters and dashed to the earth; and the spot which had been a portion of dense forest and jungle,



ELEPHANT KRAAL, ISLAND OF CEYLON

appeared in a few minutes like a ploughed field, whilst their trumpeting rent the air, as they raced and tore about, round and round the inclosure, which was surrounded with blazing piles of wood, and thousands of people from all parts of the island. Eighteen elephants were captured, some of them the largest I have seen, and three very small ones.

Next morning, the tying commenced. Six tame elephants entered the inclosure; the mahouts, armed with spears, mounted on their backs: the wild ones kept in a herd, the punchies, or little ones, running under the bellies of their mothers. Often would these affectionate and noble animals, when maddened by the hunters, cover their little ones with their trunks to protect them, as they raced up and down. Now and then a charge was made: one of the herd would elevate his trunk, his tail stretched out, huge ears cocked, and race through the inclosure, bellowing most frightfully. Two of the tame ones would single him out, one at each side, while, should he prove unruly, a large tusker would follow, goading him behind; then, crushed between the two, the mahout slipped a noose on one of his hind legs; he was thus dragged to a tree, and there tied; his three other legs were afterwards secured in like manner. So the herd were taken, one by one, until all were secured, except the three little punchies, which were allowed to go at large. It was truly a melancholy sight to see these noble animals, who had roamed these wilds, the undisputed monarchs of the forests of Ceylon, overcome, exhausted, bound captive, crying most piteously; some of them lying stretched on their side, and the little one sucking their captive mother.

At the close of the tying, the procession to the watering-place (Alligator Pool) took place; the ladies carried in palanquins, and the gentlemen walking in procession; Cereberry and Wira leading two of their captive brethren, with the hunters mounted on their backs, to water, followed by all the chiefs and herdsmen, down the Kimbolwona Oya; crowds of spectators standing under the shady trees to witness the scene.

In these regions (we have no twilight) darkness—when there is no moonlight—intense darkness, quickly comes on. It would be impossible for any description to convey an idea of the beautiful effect of the fire-fly, which is the loveliest of all insects: countless myriads of them bespangled the jungle, every tree was literally covered with them; they shone as brightly as the stars in the heavens on a clear frosty night.

I made twelve sketches of the Kraal, and rode to Kornegalle on an elephant's back, the Modliar having disappointed me in sending a horse.

This Kraal was got up in honour of Lord Torrington's arrival in Ceylon.

ANDREW NICHOLL, A.R.H.A.

THE GREAT TEMPLE OF DAMBOOL, CEYLON.

The Great Temple of Dambool, founded by King Walagam Bahoo, a century before the Christian era (like all the other rock temples in the Kandyan country), is constructed partly in a cave or hollow of a huge overhanging rock, 500 feet in height. The entrance is a noble specimen of Eastern sculpture, carved out of the face of the rock. The ceiling is gaudily ornamented with painted cloth, which has a grand and imposing effect. It contains 46 statues of Buddha, two kings, and three gods, and measures 168 feet in length, 73 feet wide, and 24 in height. At the front, near the entrance stands a very handsome dagobah, with four sitting figures of Buddha. The first chamber or temple of the great god is called Mahu Dayio Dewale, from the statue of Vishnu, before which trials were decided and oaths taken. This statue is one of the transformations of that god, termed Ramachandra. There is also a reclining figure of Buddha cut out of the rock, measuring in length 50 feet. Dambool Temple is the most celebrated and magnificent in Ceylon. Its entrance, in the side of the rock, is fully 100 feet above the surrounding country, and commands a very extensive view of the vast forests, which extend as far as the eye can reach.

The accompanying illustration was sketched from nature by Mr. Nicholl, who also has given us this account of the place.

BACCHUS RECLINING.—NEURINI.

This very spirited statue stands in one of the front bays of the Tuscan department. It is in white marble, by Professor Neurini of Florence, and as the date upon it "1850" implies, was probably executed expressly for the Great Exhibition. The god of wine, who has none of the bloated appearance attributed to him by modern conventionalism, is reclining in an easy graceful attitude, whilst he squeezes the juice from a bunch of newly plucked grapes into his mouth. The treatment and execution are of a high order of merit.

FISHING TACKLE.

In our article under this head we omitted to notice Mr. Banim's (Fishing Tackle maker, of Kilkenny) contribution, No. 160, Amateur Fly-anglers' Cabinet, made of Irish bog yew, which, from arrangements then going on at that part of the Exhibition, had been placed out of our sight. It is a contribution so thoroughly in accordance with several of the ob-



"BACCHUS RECLINING."—BY PROFESSOR NEURINI.

servations we there made, as to induce us at once to return to the subject, and do justice to one who is evidently a practical master of the craft.

It is intended for the use of such anglers as prefer to follow their sport with flies of their own fabrication, and contains ten drawers and two open compartments. In the drawers are all the requisites for the amateur fly-maker, arranged in an orderly and neat manner, while the open compartments are for the reception of furs and feathers preparatory to arrangement in the drawers.

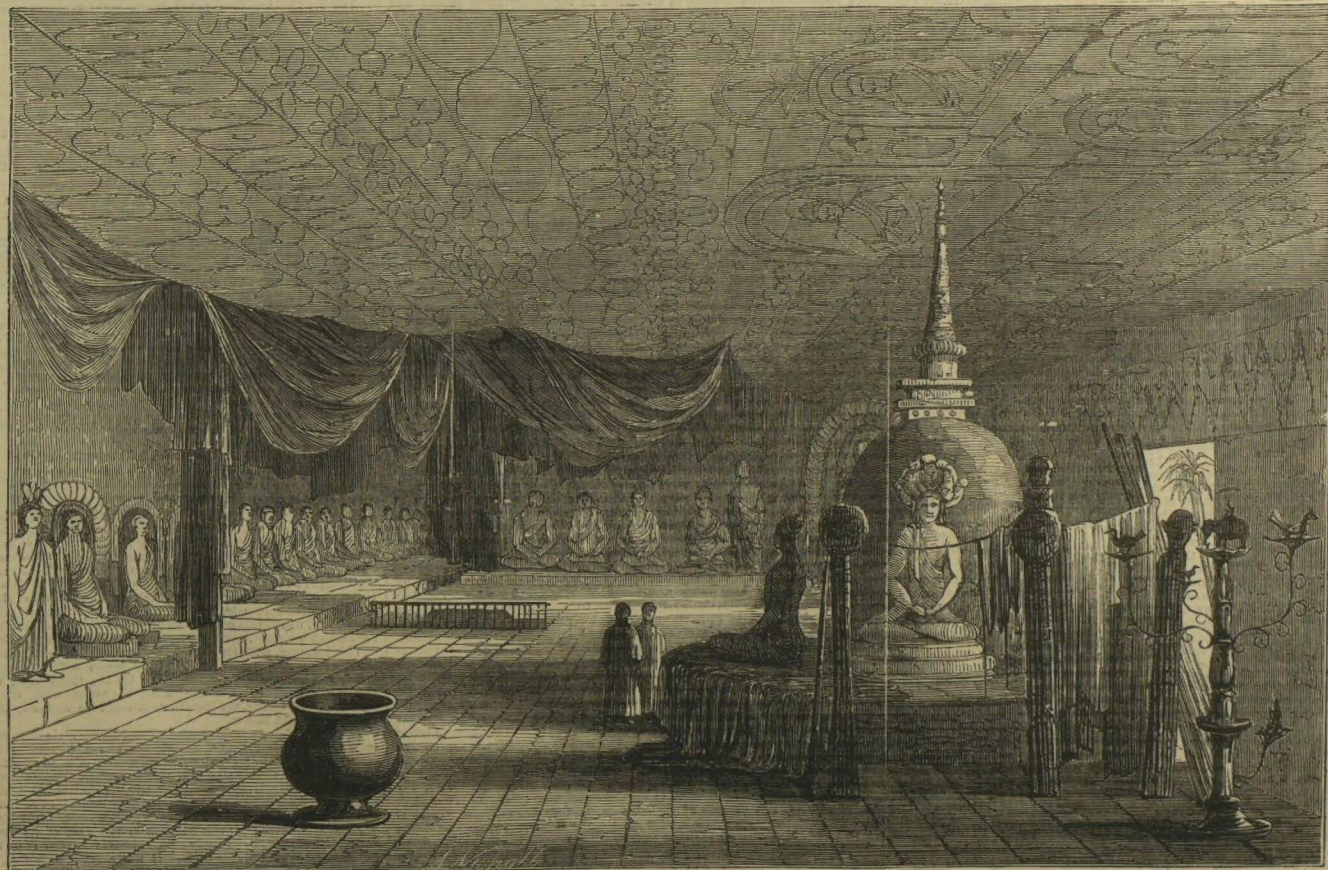
In the drawer the lowest of the first series is a book of quarto size, entitled "Book of Trout Colours." This book contains the prepared dubbing for forming the bodies—or, scientifically, the thorax and abdomen—of trout flies. The colours and dubbing so prepared are placed in the leaves of the book, according to the season—the earliest being marked No. 1, and the number continuing to the end of the summer. Samples of the flies made therewith are found here.

Introductory to this "Book of Trout Colours" is an essay on the characteristics and uses of aquatic insects, in which the theory of the angler's peculiar mode of studying the river ephemera for his special purpose is laid down. The theory propounded on this interesting subject is novel, and is founded upon good data. Nor are the inductions the mere result of theory alone; for, if we are rightly informed, some forty years' experience has entitled Mr. Banim to propound his views with a more decided tone than his modesty has permitted him to use. At all events, it invites the examination of the practical angler, the more particularly as the actual manufacture of the flies in their various stages admits of the severest test. In another drawer of the cabinet is a second book—"The Book of Salmon, Lake, White Trout, and Pike Colours," with the materials of the flies, and a short essay with the rules for their fabrication.

The Cabinet appears to be, as to its contents, a theory on aquatic insects, with a practical and mechanical application—a conjunction of anglers' science, with the angler's *bond fide* experiments founded thereon.

It will therefore be seen, that, while it possesses a large amount of interest to the fly-fisher, it affords no little instruction to the naturalist.

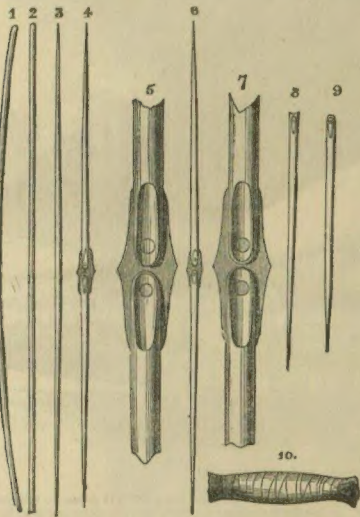
There is an angler's winch in Section 23, Mr. Higgin's case, which, from its not being mentioned in the Catalogue, escaped our observation. It certainly possesses features of novelty, inasmuch as it will permit of the angler casting his bait direct from the winch, without any check from the cogs of the wheel. This, indeed, would be a great advantage, were it not attended with very awkward drawbacks. It is true, that, if the winch be left wholly unchecked, the line may be thrown to a considerable distance without the necessity of first laying the line in coils at the feet of the angler, as is now the case, and which necessity too often involves the line in considerable entanglements from stable or briars; but, on the other hand, a strong cast from the winch itself is as certain in one trial out of three to meet with a recoil at the termination of the throw, which winds the line partly back again upon the winch and creates snarles of the most vexatious kind. Our readers are perhaps acquainted with the toy known as the bandoleer, which is suspended by a string wound around it, and being dropped from the hand (the end of the string being retained), descends some distance down, and, by its own rotary motion thus acquired, winds itself up again in a contrary direction. Much after this fashion is the principle of this winch; and the consequences are, to a certain extent, alike. We know this to be the effect even with the common winch, notwithstanding the friction of the cog-wheel. But what does a good angler want with anything of the kind? The supply by the hand is always sufficient when the fish has taken a trolling bait. It appears to us, that the object sought to be achieved by many of these so-called inventions is, to reduce angling, as far as possible, from an art or science to a mere bank-runner existence; not that we at all object to any really useful appliance that shall abridge the labour incident to the pursuit of the gentle craft.



THE GREAT TEMPLE OF DAMBOOL, CEYLON.

NEEDLES.

THE art of needle-making, in many of its departments, presents much that is generally, or to use a term common-place enough, popularly interesting to a large class of readers; yet, remarkably little is known as to the manner in which the tiny article in question is produced; and of the immense number of the "needle-using population," but a small proportion have a due conception of the operations and processes through which a needle goes, from its rough form to the beautifully polished instrument used oft "by lady fair, and made of low degree." Our illustrations represent a needle in its various stages of progression:



In noticing these, we shall attempt to describe the nature of the operations, in detail, as fully as the very limited space at our disposal will admit of. Brief as this must necessarily be, we trust that it may be worthy of a small corner—in keeping with the tiny article of which it treats—in the boudoir of the lady, or the little wall-nook or humble book-shelf of the peasant girl's home.

Filed in the busy hands of thousands, the little needle in our social and domestic circle plays an important part. Now, vying in lustre with the sparkling gems on the fair hands of the high born damsel, the little glistening instrument assists in weaving on the canvases the bright colours which serve to deck the stately mansion; now assisting in the more useful, if not so elegant a purpose of ministering to wants, not luxuries; anon in cozy rooms, the curtains drawn, the bright fire blazing cheerily,

The needle piles its tiny task,
—The thrashed steel
Files swiftly.

And thus, in hall and bower, and every room of the "nug citizen," the needle plays its part. But not alone in these, alas! does the instrument perform its work; could dead walls speak, and cheerless rooms tell tales, how piteous would the recital be! "In garrets cold and mean," how woe the lives of those who ply "their needles and thread." Truly, if there is not a wrong but what is sure to bring down its punishment, the misery, the sickening influence of hope deferred—endured the dragging out of a mere existence, a living death, on the part of those poor creatures—is recorded in Heaven's chronicle, in all its piteous hideousness, as evidence against us as a nation. Glad are we that the day has come when noble attempts to rescue our seamstresses from their fearful position are becoming matters of daily occurrence; and assuredly we deem it no small privilege here to advocate, though in truth but slightly, their claims to the consideration of our readers. May those of our fair readers who have the will and power, use their best endeavours to ease aching hearts—to make the needle, the companion of their happy homes, in wasted and wearied hands to ply its task more cheerily.

Lost, broken, disabled, lent, borrowed, tossed here and there and everywhere—where do all the needles go? The question has been often asked in connexion with the fate of the missing ones of its kindred or sister article, pin, but with no decisive answer as yet, so far as we know, being obtained. And such is likely to be the fate of our question. Although there may be more interesting matter in the philosophy of the question than we wot of, we leave its consideration for that of one of more immediate interest—"Where do all the needles come from, and how are they made?"

It would have been interesting at this point to have traced the history of the art of needle-making. This, unfortunately, we cannot do to any great extent. The materials to assist us in such an inquiry are amazingly scanty; and, although we have "searched and better searched," to use the quaint language of the nursery story, all sorts of books, from the thin and lanky pamphlet to the ponderous encyclopaedia, all the information we have been able to hunt up on the subject is the meagre yet sufficiently interesting fact, to not hypercritical minds, that "Needles were first introduced into England in 1540, in the reign of Elizabeth, by a native of India," so that it appears, that, amongst other things, we are indebted for the needle to the "glorious reign of good Queen Bess." The above important fact seems to be a stereotyped one, as every writer ventures on the flow of the historical river is soon stopped for want of material, and to "close the period up," a little bit of traditional matter is added, to impart to the whole recital something like the dignity of historical research. The tradition is this—that the above-mentioned native of India having died, the manufacture also died with him, but that, tradition says not how, it was revived by one Stephen Green, in 1560, who was settled with his three children—mark the historical circumstantiality of the details—Elizabeth, John, and Thomas, by Mr. Hansen, ancestor of the Lord Milton, at Long Creden, in Bucks, where the manufacture has been carried on from that time to this present day. As to the truth of this tradition we cannot positively say; but it certainly is the fact, that for many years the manufacture has been carried on solely at Redditch, in Worcestershire; and to no extent worth noting in any other place, city, or town in the kingdom, with the exception of a factory in Bucks, where needles are made called "sail," not the beautifully polished, the gently-tapered and smooth-eyed article that ladies use.

Needles, as all our readers are aware, are made of steel, the steel being made into thin wire, of a diameter proportionate to the fineness of the needles to be made. As the wire is brought to the factory in circular bundles, the first operation is untying them and cutting the wire into certain definite lengths. A pair of shears, of rather large dimensions, are fixed to the wall of the cutting shop, having the blades uppermost; one limb is fastened, the other is loose. The workman is provided with a gauge by which the length of the wire to be cut off is determined. Uncoupling the bundle of wire, he puts the end into the gauge, and placing the series of wires forming the thickness of the limb with his thigh, and by moving the coil up and down to assist the cutting action, he speedily severs the lengths from the coil. Proceeding thus, he cuts off a series of lengths till the coil is exhausted: out of one coil he may thus obtain as many as 40,000 distinct wires. The coil being circular, it is evident that each individual wire must partake somewhat of its curvilinear shape; in fact each is far from being straight. Fig. 1 is a fac-simile of the wire at this stage. As one of the requisites of a needle is that it shall be straight, the next process is to straighten all the wires. Supposing two of the curved wires in Fig. 1 to be placed in the palm of one hand, and rubbed quickly, backwards and forwards, by the

fingers of the other, a slight straightening would ensue; but, if the needles were removed to a hard flat surface, as a table, the operation would be much facilitated. If, however, a dozen or two of wires were to be placed on the table, and so kept as to lie close to one another, and then rubbed, the pieces, rolling one upon another, would soon be straightened; the rounded part of one would roll upon the flat part of another, and thus, by the continuance of the process, the whole wires would be straightened. This is, in fact, the rationale of the process carried on at this stage of the manufacture. Two rings of iron are provided, some 3 inches in diameter, $\frac{1}{4}$ inch broad, and these are placed, these are placed a distance apart on a flat surface some 18 or 20 inches from the ground. The wires are placed between the rings in such a way that, when the wire is placed within them, the ends are flush or even with the outer surfaces. Supposing a number of wires are placed thus, sufficient to fill the interior of the rings one-half of their diameter or so; the whole are fastened tightly in, and placed in a furnace and heated to a red heat. They are then taken out, placed on the slab, and the fastening removed, so that all the wires are free to move upon another. The workman then takes a piece of curved iron, some inch-and-a-half broad and half-inch thick; he places the curved or convex side of this on the top row of wires between the rings, and, pressing forcibly by means of his hands at either end of the iron, works the rings briskly backwards and forwards on the slab. By this means the wires are kept rolling upon each other, and continually shifting their places, thus presenting a new portion of their surfaces to the action of their neighbours. The workman, who may easily be ascertained by inserting a piece of cold wire, which, being black, is easily observable among its red neighbours. Near the bottom of the ring, in a few seconds it will be seen at the top, its course being distinctly traced, winding its eccentric way amongst the others. When cold, the wires are all straight, as shown in Fig. 2. The next operation is the pointing. In order to save time, each wire is long enough to form two needles; each is therefore pointed at both ends. Fig. 3. The grindstones by which the wires are pointed are of small diameter, not more than 10 or 12 inches, but they revolve at an immense velocity, the moving power being generally water-wheels. Each grinder sits on a low stool, in front of the grindstone, a small trough of water being placed before him. Taking up 60 or 100 needles, according to their quality, he places them on the palm of the right hand, so that the ends of the needles project over the index finger. Next placing the left-hand fingers on those, the thumb grasping the back of the right, he is enabled so to move the whole range of wires that they may rotate with ease on their axes, and yet without rolling over one another. He then applies the points of the wires to the rapidly revolving grindstone; if he held them always in one direction, the action of the stone would be such, that the points would be bevelled off like chisels; but by the finger moving the wires all to revolve, thus giving to each a gently tapering and perfectly round point. As the wires are apt to project unequally over the finger, thus presenting one wire longer than another to the grindstone, the workman every now and then strikes the points gently against an upright flat-faced piece of timber, somewhat in the same manner as a person shuffling a pack of cards makes them all even by knocking their ends upon the table. On the wire becoming red-hot, the workman dips them into the trough of water placed before him. A brilliant stream of fiery sparks is continually passing from the points. The matter thus evolved being inhaled into the lungs of the workman, formerly rendered them a peculiarly short-lived race. The deleterious products are now, however, by the use of a powerful fan, drawn away from the nose of the workman, and so the operation of grinding is made as healthy as any other. The operation of grinding is, in fact, an interesting, and presents an exemplification of the dexterity attainable by long practice in any one branch; but this remark is equally applicable to many other departments in the manufacture of needles. A good workman can point upwards of 10,000 in an hour. It is amusing to see the rapidity with which he will take up a handful of wires, point an end of them all, and then send them so as to present the other ends to the stone, lay them aside perfectly straight.

The wires thus pointed are next taken to the "stamping shop," and here the wire first gains its approach to a needle. Such needle is to be rounded at the head, and have a hole made there, called the eye, as also an indented channel on each side, called the "gutter" of the head; the stamping makes the round form, and marks the place of the eye-hole. A wooden framed stand, on a table, is provided, with a massive anvil, on the upper surface of which the wire is placed, or design in intaglio, similar to that shown in fig. 5; a weight is suspended by a rope over a pulley placed above the table, and plays between two vertical guides; the same design as in the die is made on the lower surface of the weight, but in relief, or protruding from the surface. The lower end of the rope sustaining this weight is provided with a thimble, the workman takes up his foot. Standing before the table, he takes a number of needles in his left hand, and the weight places each wire exactly in its centre on the lower anvil or die, and letting the weight drop suddenly, by raising his foot, the design is impressed on the centre of the wire, on both sides, as seen in fig. 4. Fig. 6 is an enlarged view of the centre part of the wire. The round circles are the places through which the eye-holes are to be punched; they are very slightly indented at this stage, merely enough to denote their situation. By depressing his foot, the weight is brought down, and places another wire on the die, allowing the weight to drop suddenly, as before; the impression is made, and the wire cast aside, to be replaced by another, and so on. So rapidly is the process gone through, that it is actually inductive of an optical deception. The workman takes each wire from his left hand, places it upon the die, withdraws it, and throws it aside; he takes up another, so very quickly, that a quick-eyed witness of the operation actually believes that it is the same one, and a needle that the operator is moving out and in. Considerable nicety is required in the stamping, as each wire is to be placed so that it will be struck exactly on the centre; the chief guide to aid him is the eye; and so rapidly does he become aware of its being wrong placed, that he arrests the fall of the weight at any particular point of its descent: indeed, the facility with which he can do this by the immediate action of the foot is not the least remarkable in the whole of this department.

The eye-holes are next to be punched. This operation is generally performed by little boys. A small screw punch is used for this purpose. The lower end of the punch is provided with two projecting points placed at a distance from each other, exactly equal to that between the indentation formed in the wire, through which the eye-holes are to be made. The operator, holding a number of the stamped wires, spreads them out like a fan, and placing each one on the die, he brings down the upper slab, which makes the holes in the wire forming the eye. This is a very nice operation, as the slightest misplacement of the wires, so that the centres were not in the right places, would involve the spoiling of each, from the punches passing through wrong places. To guide the operator, a small indentation is placed in the lower slab, or bed; into this the wire is placed; by means of this, a delicacy of touch, and a quickness of the eyeight, almost every wire is placed on the slab, and properly punched in the exact places.

Each of the wires has two moulded parts, gutters, and eye-holes in the centre; the next operation is the dividing of these so as to form two needles. Figures 6 and 7 show the needle in this stage previous to the dividing. Figure 7 is an enlarged view of the centre of fig. 6. The first step in dividing the wire is what is termed "splitting," that is, passing a fine steel wire through the eyes of perhaps a hundred wires, as there are two eyes there are also two wires; when they are all thus split, they are bending them backwards and forwards between the hands, they are broken in the centre, one-half remaining on each wire. Before dividing them, however, the protuberances on either side, as seen in figures 4, 5, 6 and 7, are filed off, by placing the wires (spitted) on a convex block, keeping them tight there by means of a strap over the ends, while the workman uses a smooth file. When broken, each needle is squared, as in fig. 8. It is nicely moulded by means of a very small grindstone, as seen in fig. 9.

We have thus far traced our piece of wire to a very respectable-looking needle; but, much as it would be prized by a savage, it is by no means fit for use in civilised countries; to make it so, it has to undergo many processes: these we shall attempt to describe very briefly. The needle, at the stage we have arrived at, is so soft that it is bent as easily as a piece of lead, and the fingers as easily as a piece of lead of the same diameter. They therefore require to be hardened. Previous to the hardening, the "soft-straightening" is to be gone through. This operation is meant to restore the straightness of each needle, lost by the repeated processes which it has gone through, as "pointing," "stamping," &c. The "soft-straightening" is simply the reverse of the "stamping" process. Placing the needles parallel to one another on a bench having a flat convex piece of iron on each of the needles, rolling it over and over, until it is straightened. So quickly is the operation effected, that a good workman may straighten upwards of three thousand needles in an hour. The straightened needles are then hardened by being heated to redness in an oven or furnace, and suddenly plunged into cold water or oil. This makes them so brittle that they can be broken as easily as glass. They

require, therefore, to be "tempered." This is effected by placing them on a hot plate, and moving them about so as to present each needle in succession to the action of the plate. As soon as they have all acquired a particular colour, they are removed. When cold, they are then beautifully elastic. As they are, however, slightly distorted by the action of the heat, each needle is straightened by giving it a tiny blow with a tiny hammer on a small steel anvil. This process is necessarily tedious. It is called the "hard-straightening."

The needles, though now properly tempered, are still rough and unpollished on their surface: to obviate this, and make them bright, is the next of the series of operations. The process is termed the "scouring." A strip of canvass is laid on the table, and an immense number of needles are placed on it, all parallel to one another; a pretty large allowance of soft soap, sweet oil, and powdered stone found in the neighbourhood of Redditch, is then placed over them, and the whole tightly wrapped and corded up into a shape as seen in figure 10. A considerable number of these bundles being prepared, they are placed beneath a moving table of wood, working to and fro in a wooden bed. The needles by this means are rubbed one against another, until, in process of time, they are smoother and partly polished on their surface. After being subjected to the action of this machine, the rolls are untied, and the needles washed; they are then replaced in the canvass, and tied up with a fresh supply of soft soap, oil, and emery, and subjected to the action of the scouring machine. This is repeated several times, till they are perfectly smooth. After being washed for the last time, the needles are placed among some dry sawdust, and worked to and fro in the hand-shaped copper tray as before. At this stage a very curious operation is observable: the needles being mixed up with the sawdust, it becomes a matter of importance to separate them with rapidity; this is effected in a manner as simple as it is effectual. The tray in which the needles and sawdust are placed tapers up to an edge, which has no margin, forming a passage over which matter can pass without obstruction. The workman moving the tray rather up and down, causes the needles and sawdust to approach the edge; the sawdust being lighter, flies off, the needles remain; but such is the dexterity of the workman that, although the needles are seen glancing half over the edge, still it is an exceedingly rare occurrence for one to pass completely over: thus in less time than we have taken to write the above half-dozen lines, the workman separates thousands of needles from their attendant sawdust. It may be supposed, that the needles, which are so rough proceeding are lying in all imaginable positions. To make them all parallel to one another is the next operation. This is easily effected by placing them in an oblong tin tray, and giving it a peculiar shake in a remarkably short space of time some thousands are paralysed. But, although they are parallel to one another, still they are wrongly situated for subsequent operations—the head of one may be next to the point of another; it is necessary that the head of each needle should lie one way, the point another. To attempt to do this by singling out each individual needle, would be a hopeless task where millions have to be operated upon. By a very simple contrivance—we may say machine, for it saves labour—the operation is effected most rapidly. A small piece of linen rag is wrapped round the forefinger of the operative, and, placing a few thousand of the paralysed needles before her on the table, she passes the covered finger along one side of the needles, the finger of the other hand on the other side; the needles having their points at one side stick into the linen rag; these are placed by themselves. In this way all the needles with their heads lying one way are left by themselves.

The next operation is "drilling" the eyes. From the nature of the operation of "punching," the holes are rather rough and uneven: it is to remove this, and to counterbore the holes, so that the sharp edges may be taken off, that the operation of sewing is gone through. As the needles by this time are hard, they have to be softened by the application of heat, so that the drill may not be spoiled by the hard metal. For this purpose a number of needles are placed on a bar of iron, with their heads projecting over the edge a short distance; these are then applied to a red-hot bar, which reduces the temper of the needles, causing the head to assume a beautifully blue colour; this process is called the "bluing." A number of the blued needles are next taken to the drill—generally a little girl—and placed behind a steel bar, with their heads projecting slightly above its upper edge. The operative sits exactly in front of a little drilling-lathe, in which a small drill is placed, and made to revolve rapidly. The needles are brought one by one before the point of the drill: the drill not only cleans out the eye, making it perfectly smooth, but it also counterbore the outer edge of each. Some idea of the accuracy of the operation may be obtained, when it is remembered that the variation of a hair's breadth in the position of the eye of the needle to the point of the drill would result in the complete spoiling of the article; yet such is the amazing rapidity with which the drilling proceeds, that a dozen will be drilled in as many seconds; in fact, it is difficult to believe on first witnessing the operation, that the needles are really drilled.

The needles are then taken to the polishing-room, where they are beautifully polished by being held to the periphery of a revolving wheel, covered with buff leather. The needles are taken up in a dozen or so at a time, and first held by the points and the upper ends, then by the heads and the pointed ends: the whole surface of each needle is thus rapidly polished. They are next counted and put up in little blue papers, twenty-five in each, labelled, and tied up in bundles for sale. We thus briefly trace the history of a needle from its rough state to its final condition. As an instance of the many processes through which a needle of the best quality goes, we here append a list of them—

Number of processes through which a best needle goes from the commencement of its manufacture.

1. wire received; 2. weighed; 3. gauged; 4. cut; 5. rubbed; 6. counted; 7. pointed at first end; 8. washed; 9. cut back; 10. pointed at last end; 11. examined; 12. counted; 13. washed; 14. weighed; 15. annealed; 16. stamped; 17. pressed; 18. spitted; 19. filed; 20. broken; 21. heads filed; 22. oil burnt off; 23. soft-straightened; 24. evened; 25. counted; 26. hardened; 27. evened; 28. strapped; 29. tempered; 30. weighed; 31. examined; 32. picked for crooks; 33. hardened; 34. counted; 35. counted; 36. washed; 37. counted; 38. evened; 39. headed; 40. weighed; 41. ground (at points); 42. weighed; 43. scored again with 1 more emery, and glazed; 44. weighed; 45. washed and dried; 46. weighed; 47. evened; 48. headed; 49. picked for waste and broken points, flecked, and crooked; 50. weighed by count; 51. set; 52. examined; 53. weighed for drillers; 54. blued; 55. drilled; 56. weighed; 57. rubbed from dust; 58. with 7 emeries, washed and finished; 60. finished once; 61. rubbed; 62. finished again; 63. rubbed; 64. examined; 65. counted in 25's; 66. papered; 67. labelled; 68. tied up; 69. collected; 70. packed up.

FREEMAN ROE AND HANSON'S FOUNTAIN AND HYDRAULIC

RAM.

There are many interesting and elegant objects which "lend enchantment to the view," within the Crystal Palace; and none more so than the various beautiful fountains which we discover in different parts of the nave and transept. While Osler's exquisitely finished crystal fountain—occupying the very central spot of the transept—takes the lead in the list of these, the neighbourhood of the north transept, Messrs. Roe and Hanson, with its seventeen jets, which may be varied at pleasure, gives a charm to the spot which it occupies, on the north of the site of the Royal dais, which will be, if possible, more eagerly sought after in the hot days which we may hope to experience in the present month.

This fountain, with the rim of the large basin, is of iron; the basin being 18 feet in diameter. Three other basins are seen rising one above another, the whole being surrounded by a massive wall of masonry, and furnished with several jets, as the dome, the convolvulus, wheatstack, &c. Of the central basins, the lower one is 4 feet 10 inches in diameter, and the upper one 12 inches.

In the large basin is the model of a *Victoria regia* lily, made to the scale of 1 inch to the foot, having the leaves, flowers, and buds complete; on one of the leaves stands the model of a boy holding a flag in his right hand, with "God save the Queen" inscribed thereon. In the full-blown flowers water gushes out to form the petals; and around the large ground basin are seventeen variable jets, which render this one of the most interesting objects visible in the transept.

The waste water from this fountain is made use of for the purpose of driving an improved hydraulic ram, exhibited by the same firm, a little to the south of their large basin. It has a fall of 30 inches, and throws up water to the height of about 16 feet—the action of the ram is very visible to spectators. In mountain districts especially, these rams may be advantageously introduced for raising water for the supply of houses, for the irrigation of lands inconveniently situated as regards water, and for many other purposes where it is desirable to dispense with additional labour.

and the whole space proposed to be enclosed, for all the purposes comprehended within this useful scheme, is equal to 65 acres.

London: Printed and Published at the Office, 196, Strand, in the Parish of St Clement Danes, in the County of Middlesex, by WILLIAM LITTLE, 196, Strand, aforesaid.—SATURDAY, JULY 5, 1851.—SUPPLEMENT.